S. HRG. 112–34

IMPLEMENTATION OF THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

HEARING

BEFORE THE

SUBCOMMITTEE ON OCEANS, ATMOSPHERE, FISHERIES, AND COAST GUARD

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

MARCH 8, 2011

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IMPLEMENTATION OF THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

TUESDAY, MARCH 8, 2011

U.S. SENATE,
SUBCOMMITTEE ON OCEANS, ATMOSPHERE, FISHERIES, AND COAST GUARD,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10:35 a.m. in room SR–253, Russell Senate Office Building, Hon. Mark Begich, Chairman of the Subcommittee, presiding.

OPENING STATEMENT OF HON. MARK BEGICH, U.S. SENATOR FROM ALASKA

Senator BEGICH. This hearing is called to order.

Senator Snowe will be here in short order. She's coming from a Finance Committee meeting.

Why don't you go ahead and have a seat while I get the meeting started. Now, you can say it. Thank you very much.

Good morning to all of you. Welcome, to our witnesses and other guests, to this first hearing of the Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard in the 112th Congress.

This also marks my first meeting as a subcommittee chairman, a responsibility I take especially seriously, because of its jurisdiction over so many issues in our economy, from fisheries, oceans, weather forecasting—multiple roles played by the Coast Guard in Alaska.

Today we will hear from testimony from two distinguished panels of witnesses regarding the implementation of key provisions of the Magnuson-Stevens Act, or MSA, that were added by Congress when it was last reauthorized. We hope to learn more about the impacts these changes and additions to the MSA have on—having on the Nation's fisheries and individuals, businesses, and communities who depend on them.

This landmark legislation was originally sponsored by several great friends of Alaska—Senator Magnuson, our own Senator Ted Stevens, and Senator Inouye—and co-sponsored by several Republican and Democratic members of the Committee. It represented a truly bipartisan effort to carefully manage one of America's greatest assets, our fisheries.

As most of us in the hearing room today know, marine fisheries conservation and management is a subject this Nation has strug-

gled with, not just for years, not just for decades, but for centuries. These issues are never easy. One of the most challenging has been, and likely will always be, how to properly balance the need for responsible stewardship of our fisheries for future generations with needs of individuals, businesses, and communities who rely on them today.

In Alaska, we've had, generally, a positive experience under MSA. Since taking control of these fisheries from foreign fleets in 1976, Alaska now produces over half the Nation's fish landings, and our major fisheries, like the salmon, pollock, halibut, and cod, are certified as sustainable. In fact, I contend, Alaska has the best managed fisheries in the world. We operate on the strict catch limits, or hard TACs, as they have been known. None of our groundfish stocks is considered overfished, and most operate under some form of limited access program.

Not that these actions are not—noncontroversial, fishermen—and our fishermen so argue at length at council meetings. They feel the pain when quotas are cut and downturns in fisheries cycle. But, at the end of the day, the Alaska fishing industry has learned to work within the rules of MSA and has largely prospered.

I'm pleased to welcome a fellow Alaskan, Stephanie Madsen, a former Chair of the North Pacific Fishery Council and now Executive Director at the At Sea Processors Association, to address the Alaskan perspective, on the second panel.

Given how contentious fisheries issues can often be, it is important to remind everyone that the 2006 reauthorization wasn't your typical fisheries bill. At the end of the day, the Senate passed it, by unanimous consent.

We're hoping for more of those things, right, John?

And the House passed it under suspension of the rules.

The 2006 reauthorization made several changes to MSA in order to improve its effectiveness and strengthen the fisheries conservation and management, domestically and internationally. Most notably, it amended the MSA to require, for the first time, the use of annual catch limits and accountability measures in all management plans in order to end the overfishing that provided fishermen and the councils with new tools to rationalize fisheries, where they wish to do so. Equally important, it imposed a requirement that all management plans for overfished stocks include a timeline for rebuilding that is as short as possible, and generally not longer than 10 years.

The 2006 reauthorization also made important changes to the MSA, aimed at improving the accuracy and reliability of data on recreational fisheries activities in order to better manage so-called "mixed use" fisheries, fisheries that support charter and private recreational fishing, as well as commercial fishing, including through the authorization of a new National Saltwater Angler Registry.

I look forward to hearing from our witnesses today on how these and other changes and updates to MSA are being implemented, and what effects they are having, and what recommendations in the future.

Before I do the opening statements from the individuals that are here, when Senator Snowe——

Perfect timing. Perfect. Good.

What I would like to do is recognize the Ranking Member, Senator Snowe. Give her a minute, here.

Senator SNOWE. OK. If you wanted to go to Senator Kerry, that'd be fine. Thank you.

Senator BEGICH. Do you want to do openings? Or I'm going to directly——

Senator KERRY. I'd like to say a couple things. Can I?

Senator BEGICH. Yes.

Senator KERRY. Mr. Chairman——

Senator BEGICH. I'm breaking my own rule. I hope you know that.

[Laughter.]

STATEMENT OF HON. JOHN F. KERRY,
U.S. SENATOR FROM MASSACHUSETTS

Senator KERRY. Well, I appreciate you doing that, because I have to speak on the floor, on the budget, in a little while, and I'm locked into that, so I won't be able to be here for the whole thing. But, I really appreciate it.

First of all, let me welcome you to the chair, Mr. Chairman. As a former chair of this subcommittee, I'm really happy to see you take over. I actually was chair, with my Ranking Member, Senator Stevens.

And, to be honest with you, Senator Stevens and I worked for a couple of years leading up to the rewrite of the Magnuson Act, and we sort of got ready to do it, and then the Senate changed and he became the chairman. And now we have the Magnuson-Stevens Act instead of the Magnuson-Kerry Act, which has——

[Laughter.]

Senator KERRY.—always been little bit of a, you know, question.

[Laughter.]

Senator KERRY. But, Ted became, just, an enormous friend. And he was a wonderful advocate for the fisheries, for the environment. And he was really a pleasure to work with. And we did a lot of things together, including going to the United Nations together to get the drift net ban put in place. And we still have problems with that.

The reason I say all of this is just—I wanted to lay a predicate for my comments. I think I've rewritten Magnuson-Stevens two or three times in the course of being here, and we are still struggling. I just had a meeting, this past week, with Secretary Locke and with Jane Lubchenco out of NOAA, because our fishing folks up in Massachusetts are really having a very, very difficult time right now. And I hope, Mr. Chairman, that we'll be able to get the—some progress here in the process.

I can remember Ted Stevens sitting here, probably right here in this chair, saying how much we needed better science and how we—and I know Senator Snowe knows this—we need better science for our fishing people to make the judgments that are being made. And they just don't have confidence in them. And we still need it. We still need better science.

And I'm concerned that right now, in the current Northeast Groundfish Fishery situation, we don't accurately reflect the situa-

tion that is facing the fishermen there. And I've heard people say, "Well, the revenues are rising for the total take in your ports." Well, for about 10 percent of the fleet, that may be true; and that's because of the allocations. And the allocations are hurting the, sort of, smaller fishermen. And we need to get better in this job. We need, from you, Mr. Schwaab, the hard science/evidence of what the state of those fisheries are, so we can make a better judgment about how this is impacting our industry. And I think you know this.

And I'd just very quickly say to you, there's a lack of transparency and a lack of sharing of the data. And it continues, assuming the data exists—the detailed individual boat and permit revenue—I emphasize, "individual boat and permit revenue," not just the whole kit and caboodle—the quota transfer and leasing information that's critical to understanding this impact.

So, my hope is—I also think that the ACLs ought to be increased for the remainder of the fishing season, consistent with the requests that we've made, which I believe—I'm convinced, and I've been one of the advocates over 27 years here, for maintaining the stocks and preserving the oceans and making sure we have fishing in the future—but, I'm convinced that we could do that in the short-term without hurting either of the goals. And so, I hope we'll look at that very, very closely.

But, I thank you, Mr. Chairman, for taking this on. This is a committee/subcommittee that has a lot of impact on people's lives, and this issue is really critical to a whole lot of parts of our country.

Thank you.

[The prepared statement of Senator Kerry follows:]

PREPARED STATEMENT OF JOHN F. KERRY, U.S. SENATOR FROM MASSACHUSETTS

Chairman, Begich, thank you for this opportunity to discuss the implementation of the Magnunson-Stevens Fishery Conservation and Management Act and the increasingly difficult situation facing fishermen in Massachusetts.

During my tenure on the Senate Commerce Committee, I helped to rewrite the Magnuson-Stevens Act and remain committed to the goal of building sustainable fisheries. However, I am concerned about the negative consequences that have resulted from the implementation sector-based management under Amendment 16 coupled with low Allowable Catch Limits (ACLs) under Framework 44 in Massachusetts.

In a recent trip to Massachusetts I met with our fishermen, local business leaders, Mayors, state representatives and officials from Governor Patrick's administration. Each of these disparate groups asked me to change direction of fisheries management in Massachusetts.

I have reviewed information from the National Oceanic and Atmospheric Administration (NOAA) on the current state of the Northeast Groundfish Fishery, but I am concerned that the information does not accurately reflect the situation facing the majority of fishermen in Massachusetts. Revenues for the entire fishery may be increasing under sectors. However, net revenues have been drastically reduced for much of the fleet as the costs of leasing quota have become the highest percentage of fishing expenses than any expense realized in the past. There has also been a distinct shift of revenues from the bottom 90 percent of the fleet to the top 10 percent of the fleet mainly due to an allocation schematic that left many of the fishermen with woefully small allocations making them unable to fish or afford to lease quota that would enable them to fish. Many of the fishermen are struggling just to keep a roof over their heads and feed their families.

Specifically, during my time in New Bedford it was clear that there was a deep sense of disappointment that the Department of Commerce has rejected the Governor's request for direct economic relief that was supported by the Congressional

delegation. This denial is unacceptable, and I strongly urge NMFS, NOAA, and the Department of Commerce to continue to work with the Massachusetts delegation and the Governor to provide direct economic aid to the fishing community. What I find particularly frustrating is the continued lack of transparency and sharing of data (assuming it exists) that details individual (boat and permit) revenue, quota transfer, and leasing information which is critical to answer consolidation and excessive share questions and fully understand how the industry is changing.

Second, they believe that ACLs should be increased for the remainder of the fishing season consistent with the Governor's report. As I argued prior to the start of the Fishing Year 2010, catch limits need to be increased for the choke stocks in order to minimize the risk of failure of the sector management while still preventing overfishing from occurring. Low ACLs coupled with the new management plan is one of the main reasons that there has been a backlash against catch shares in Massachusetts. While the Governor's Report did not provide new scientific data, because they do not possess new scientific data, it presented a well-reasoned analysis of how catch limits can be increased within both sustainable and legal bounds. This increase would greatly aid many fishermen in the last 2 months of this fishing year.

Third, there is continued distrust of the Federal agencies as a result of the past abuses highlighted in the Inspector General's reports. More must be done to restore credibility. Specifically, a window should be opened for additional fishermen who did not initially submit their cases to the Inspector General for fear of retaliation to bring their cases to the Special Master, and the penalties associated with the cases currently being reviewed by the Special Master be stayed until the review is complete.

Finally, there is a lack of confidence in the science that informs ACLs and fisheries management. This is an issue fishermen, scientists, and decisionmakers have wrestled with for years. We must continue work to increase the frequency of stock assessments, more quickly incorporate the findings of cooperative research, and reduce the amount of scientific uncertainty in our management decisions.

Taken together, these actions will help reduce the tensions between our fishermen and the Federal Government. It will help our fishermen join in the process to develop a healthy, profitable and sustainable fishery that we envisioned in the 2006 Magnuson-Stevens reauthorization.

Senator BEGICH. Thank you, Senator Kerry.

Senator Snowe, for your opening——

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

Senator SNOWE. Thank you, Mr. Chairman, and I welcome you as a chairman of this subcommittee. I'm looking forward to working with you, and I congratulate you for assuming the leadership of this subcommittee.

I think both of our states share the legacy of the fishing industry and the traditions that are the hallmark of the states that we represent. Not to mention that both of our states represent about 40 percent of our Nation's shoreline, and how instrumental this industry is to our respective states, and obviously to the country. Extending the legacy as well of Senator Stevens, as Senator Kerry indicated, was the chair of this subcommittee for many years. In fact, I was on the Commerce Committee when I first came to the U.S. Senate and served on this subcommittee. Under the leadership of Senator Stevens, we learned how this industry is crucial to Alaska and to Maine, as well as to country.

Mr. Chairman, this committee passed the reauthorization of the Magnuson-Stevens Act more than 5 years ago and reinstated the critical balance between marine environments and the economic imperative of commercial fishing to coastal communities in Maine and elsewhere.

I want to welcome Assistant Administrator Schwaab, who, this past weekend, joined me again at Maine Fishermen's Forum in

Rockland, Maine. There we both heard directly from the men and women who have unsurpassed knowledge about the current status of the New England groundfishery.

I also want to welcome NOAA's Fisheries' Acting Chief Scientist Dr. DeMaster, as well as the rest of the witnesses, for their testimony today and their work to achieve crucial stability in our industries.

This is a vital moment for our New England groundfishery, as Senator Kerry indicated, as we assess preliminary data from the 2010 fishing season and look forward to 2011. It is essential that, as we review the results from the first year of implementation of the sector-based systems, we remember that our fishery was in a crisis at this time last year.

The Days-at-Seas Program had created a downward spiral for our industry: from 65 days, to 35 days, and the prospect of having as few as 14 days at sea for 2010. We were running out of days. And, moreover, we are running out of fish.

The 2009 Status of U.S. Fisheries report listed 12 of the 20 stocks as overfished in New England. And in 2009, New England fishermen caught fewer cod than in the previous years of record-keeping.

Today, compared to last year, revenue has increased. My fishermen inform me that the catch of healthy stocks, including haddock and redfish, are up by more than 10 percent. And, critically, bycatch has fallen from historical levels of 15 percent to roughly 2 and a half percent.

The bottom line is that the sector-based system, while it cannot immediately turn around our fishery, is providing cautious optimism for our fishermen for the first time in decades. As a result, it is imperative that we redouble our efforts to improve the management of the sector-based system. While I strongly believe in the intent of a science-based approach to fisheries management, we must also ensure the science is being efficiently applied and working for our fishing community.

Currently, policies are burdened by antiquated stock assessments as well as painstaking Federal regulations, such as the process required by the National Environmental Policy Act. For example, I understand that, while Canada is able to implement changes to its fishery management in 4 months, bureaucratic delays can lead to a full year of waiting for changes in U.S. policy. We must recognize that cumbersome policies cost thousands of jobs today. And, frankly, Federal agencies must exhibit a sense of urgency to address the crisis in our fisheries.

There are opportunities for action today to improve the management of our fisheries. Specifically, the legislation that I authored and was signed into law this January, corrected an interpretation of a bilaterally managed fishery and enabled representatives of the New England Fishery Management Council, NOAA, and Canadian fishery managers to recommended an increase in catch levels for Georges Bank yellowtail flounder by 44 percent for 2011, compared to the expected catch limit for this coming fishing year. We must similarly act with respect to streamlining Federal regulations through the NEPA process, and accelerate collection of baseline

data that helps establish the critical total allowable catch limitations.

Though the intent of Magnuson-Stevens was to foster cooperation rebuilding overfished stocks while retaining jobs, I remain gravely concerned that fisheries management in New England is in a state of antagonism, mistrust, and dysfunction. The Department of Commerce Inspector General report, issued approximately a year ago, and the CBS News investigative report last month, revealed Federal enforcement officials as reckless and vindictive rather than the trusted, honest, and efficient public servants that the complex management of critical fishery stocks requires. I will not stand as individuals at NOAA and NMFS undermine, harass, and in some cases bankrupt, the very fishermen they should partner with to rebuild our Nation's fisheries.

I look forward to the testimony of Assistant Administrator Schwaab of the National Marine Fisheries Service to ascertain exactly how the service is implementing the corrective action plan to address the Inspector General's finding.

Make no mistake, the sobering assessment from the report must result in action, not further planning. And I, for one, will work aggressively to remove any perverse incentives that lead to the excessive fining of fishermen merely to increase budgets. Logically, fines should be invested in restoring species harmed through violations, not more funding for more enforcement. Further, the detailed abuses of the Asset Forfeiture Fund must lead to an immediate overhaul that will, as I called for last summer, freeze the fund until the full scope of mismanagement is revealed and a new, transparent policy is established that mandates rigorous oversight.

The bottom line is, the success of Magnuson-Stevens and the recovery of the ground fishery will only be accomplished if we build a climate of trust between fishing communities and regulators. Increasing the frequency of stock assessments and of data collection through cooperative research will be critical to reduce the uncertainty about stock status while rebuilding the broken relationships between the regulators and the regulated.

As you have said, Assistant Administrator Schwaab, counting fish is a lot like counting trees, except that fish swim and consume each other. It is challenging and requires complex methodology, but these assessments have far-reaching economic consequences. In Maine, hypothetical stock assessments for herring directly led to the closure of the Stinson Cannery in Prospect Harbor, exacting further job losses in an already economically distressed community. And I know you know this, Administrator Schwaab, because you were at the Fishermen's Forum this past weekend, where they auctioned off some of the very last cans that came out of Stinson Cannery. This was the only remaining sardine cannery in the United States, and it was ultimately closed because the reductions in the allowable catch of herring that could be caught ultimately depleted the supply that was available for this cannery. Again, not because it was being overfished, but because we had to make management decisions based on uncertain science.

These assessments have dramatic ramifications and can lead to draconian decisions for coastal economies. Stock assessments and resulting management measures may make the difference between

employment and unemployment, or between a tradition being passed down to children and a way of life being lost. As a result, we must have independent and updated analyses of the results of fishing management decisions on the economies of our coastal communities.

And that's why in my first year, on this committee, I worked to make sure that we included National Standard 8 to consider the impact on the economic well-being of our communities that depend on fishing as a result of any of the regulations and was supposed to provide equal consideration in determining the catch levels that would be available for fishing.

I have also cosponsored Senator Scott Brown's legislation, which would require independent assessments of the socioeconomic impact of fishing regulations on already beleaguered fishing communities.

While rebuilding our stock is an economic opportunity with potential to generate $133 billion in sales and employ 2 million Americans, the policies must work for all fishermen, for all boat sizes, and for every port. I hope that together we can work through these critical issues for our fisheries for the months and years to come.

Thank you, Mr. Chairman.

Senator BEGICH. Thank you very much, Senator Snowe.

What I'd like to do is—Senator Rubio, if you have some quick comments—what I'm going to try to do in future hearings is just Chairman, Ranking, and get right into it. So—but I—just because I gave some flexibility for Senator Kerry, do you have anything you want to add to it?

Senator RUBIO. No, just go to questions.

Senator BEGICH. OK.

Let me, again, thank the witnesses that are here. You will have to bear with me. As my first meeting, I told—I promised the staff that I would not make any mistakes, so I'm counting on you to help me make that happen.

[Laughter.]

Senator BEGICH. But, let me first say, thank you again for being here. We'd like to limit your comments to 5 minutes. Whatever you do not—are not able to put in, we will put into the record. So, feel very comfortable about that.

First, we have two speakers. One is Mr. Eric Schwaab who is Assistant Administrator, National Marine Fisheries Service; and then Dr. Douglas DeMaster, Acting Director of Scientific Programs and Chief Science Advisor for the National Marine Fisheries Service.

What we'd like to do is—Mr. Schwaab, we will ask you to go ahead and go first, and then we'll go to Dr. DeMaster.

STATEMENT OF ERIC C. SCHWAAB, ASSISTANT ADMINISTRATOR, NATIONAL MARINE FISHERIES SERVICE, NOAA, U.S. DEPARTMENT OF COMMERCE; ACCOMPANIED BY DR. DOUGLAS DEMASTER, ACTING DIRECTOR, SCIENTIFIC PROGRAMS AND CHIEF SCIENCE ADVISOR, NOAA'S NATIONAL MARINE FISHERIES SERVICE (NMFS)

Mr. SCHWAAB. Thank you, Chairman Begich, Ranking Member Snowe, members of the Committee. It is a great pleasure to be here.

My name is Eric Schwaab. I am the Assistant Administrator for Fisheries within the National Oceanic and Atmospheric Administration. Also with me is Dr. Doug DeMaster, our Acting Chief Scientist, who does not have a formal statement prepared, but will be available to help me answer scientific questions.

Mr. Chairman, I'm honored to be your first witness. Thank you.

Senator BEGICH. You say that right now. That's great.

[Laughter.]

Mr. SCHWAAB. Our Nation's fisheries have been vital to the economies and identities of our coastal communities for hundreds of years. According to recent estimates, U.S. commercial and saltwater recreational fisheries support almost 2 million jobs and generate more than $160 billion in sales. Americans are the world's third largest consumers of seafood, and we spend billions on recreational fishing. The economic activity generated by our fisheries creates local jobs, jobs that will never be outsourced. So, it is critical that we do everything we can to rebuild fisheries and ensure strong economic opportunities for fishermen and their communities.

At NOAA, we are committed to preserving and growing good sustainable domestic fishing jobs: commercial, recreational, and aquaculture. The reauthorization of Magnuson in 2007 gave NMFS an important and clear charge to end overfishing. I am happy to say that we're making very good progress toward meeting that mandate. In 2010, the fishery management councils put in place annual catch limits and accountability measures for all stocks experiencing overfishing. I am also happy to report that we are on track to meet the deadline of having annual cash limits in place for all managed stocks in 2011.

Despite this progress, we know that many of America's fishermen and their families face extremely challenging economic times. We also know that nearly $31 billion in sales and as many as 500,000 jobs are lost because our fisheries are not performing as well as they would if all stocks were rebuilt. While we are turning a corner toward a brighter future for fishermen and fishing communities, many fishermen are struggling, in part as a result of years of decline in fishing opportunity. While we rebuild future opportunity, we are committed to helping fishermen during this difficult period of transition so that diverse, thriving family fishing businesses remain a part of working waterfronts around our coasts.

The 2007 reauthorization also included new requirements to ensure that management decisions are based on the best available science. I know there is a significant amount of tension around this issue, and there are certainly areas where science needs to be improved. That is why the President's budget request for Fiscal Year 2012 includes an additional $15 million for stock assessments, an additional $3 million to improve recreational fishery statistics.

One longstanding challenge is obtaining more timely and more accurate data on recreational fisheries. Magnuson provided new tools to fix the problems with recreational fishing data, and we are implementing wholesale changes under the Marine Recreational Information Program, or MRIP. One of the main components of MRIP is a new National Registry of Anglers. Since January 2010, anglers and for-hire fishing vessels that fish in the EEZ or for mi-

gratory species in shore have been required to register with NMFS or through an approved State registration process.

These data are being put to work quickly to estimate catches more accurately, more efficiently, and in a more timely fashion.

We have some very good examples of how fisheries management ends overfishing and leads to improved economic conditions for fishermen and our coastal communities. Many can remember when Atlantic swordfish was a stock in serious jeopardy. However, NMFS and ICAT lowered catch quotas and closed areas to fishing, to protect young fish. And the overfishing of Atlantic swordfish ended in 2002, leading to what is now a fully rebuilt fishery.

Similarly, Atlantic sea scallops were once severely overfished. But, through careful regulation and collaboration with industry, that stock was rebuilt in 2001. It is now the top-valued fishery in the United States, producing over $385 million in dockside revenue in 2009.

The reauthorization of Magnuson-Stevens also gave the councils and fishermen new tools to increase flexibility and innovation in our fisheries. One such tool is limited access privilege programs, a type of catch-share program. Catch shares have been utilized in domestic fisheries since the 1990s. While not appropriate for all fisheries, where catch shares have been successfully implemented, they provide for greater safety at sea and have successfully led to increased landings and reduced bycatch. The flexibility the catch shares provide has fostered innovative techniques and business practices that can add substantial value to fisheries. The development of catch shares has raised concerns for—from some fishermen, ranging from industry consolidation to loss of community access to higher costs associated with monitoring. We have worked hard with the councils, fishermen, and fishing communities to ensure proper program design and to allow for adaptive implementation to help address these potential challenges.

These are just a few of the many efforts taking place to meet the requirements of the Act and to ensure productive and efficient fisheries. We have turned a corner in our management of fisheries in this country. And the sacrifices made, and being made, by so many who rely on this industry are showing great promise. As we end overfishing and rebuild stocks, we will increase the economic output of our fisheries, improve the economic conditions for our fishermen, and create better, more stable and sustainable jobs and opportunities in our coastal communities.

Thank you for—again, for inviting me here, Mr. Chairman. Dr. DeMaster and I look forward to your questions.

[The prepared statement of Mr. Schwaab follows:]

PREPARED STATEMENT OF ERIC C. SCHWAAB, ASSISTANT ADMINISTRATOR, NATIONAL MARINE FISHERIES SERVICE, NOAA, U.S. DEPARTMENT OF COMMERCE; ACCOMPANIED BY DR. DOUGLAS DEMASTER, ACTING DIRECTOR, SCIENTIFIC PROGRAMS AND CHIEF SCIENCE ADVISOR, NOAA'S NATIONAL MARINE FISHERIES SERVICE (NMFS)

Chairman Begich and members of the Subcommittee, thank you for the opportunity to testify before you today on the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). My name is Eric Schwaab and I am the Assistant Administrator for Fisheries, within the National Oceanic and Atmospheric Administration (NOAA), Department of Commerce. Accompanying me is Dr. Douglas DeMaster, Acting Director of Scientific Programs and Chief Science Advisor

for NOAA's National Marine Fisheries Service (NMFS.) NMFS is dedicated to the stewardship of living marine resources through science-based conservation and management, and the promotion of healthy ecosystems. As a steward, NOAA's National Marine Fisheries Service conserves, protects, and manages living marine resources to ensure functioning marine ecosystems and recreational and economic opportunities for the American public.

Marine fish and fisheries, such as salmon in the Pacific Northwest and cod in New England have been vital to the prosperity and cultural identity of coastal communities in the United States for hundreds of years. As of our most recent estimate, in 2008, U.S. commercial and saltwater recreational fisheries supported 1.9 million full- and part-time jobs and generated $163 billion in sales impacts.[1] Americans are the third largest consumers of seafood in the world and are global leaders in marine sport fishing.

Recreational fishing is an important social activity for individuals, families, and communities, and it is a critical economic driver of and contributor to local and regional economies, as well as the national economy. Take for example, the Gulf of Mexico and the Southeast Atlantic regions, where our most recent statistics (2008) show combined expenditures on saltwater fishing trips and durable fishing equipment total $20 billion dollars annually; or the Mid-Atlantic and Pacific regions where expenditures for these items reach $4.1 billion and $2 billion respectively, on an annual basis. This significant economic activity generates local jobs—that cannot be outsourced—which support communities large and small in our Nation's coastal states, territories, and commonwealths.

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (Magnuson-Stevens Act) was groundbreaking in many respects and gave NMFS a very clear charge. It mandated the use of science-based annual catch limits and accountability measures to prevent and end overfishing, provided for widespread market-based fishery management through Limited Access Privilege Programs (or catch shares), focused on collaborative research with the fishing industry and bycatch reduction, addressed the need to improve science used to inform fisheries management, and increased international authorities to end illegal fishing and bycatch problems around the globe so that foreign fishing fleets are held to the same standards as, and do not economically disadvantage, U.S. fleets.

My testimony today will focus on NMFS's progress in implementing the Magnuson-Stevens Act's key domestic provisions. Specifically, I will address progress implementing provisions to end and prevent overfishing and improvements to fish stock population assessments and recreational fisheries data. Additionally, I will discuss our efforts to support Limited Access Privilege Programs, a management approach that has been used in the U.S. since 1990, but that received additional guidance with the 2007 Magnuson-Stevens Act reauthorization. All of these efforts contribute to the success of U.S. fisheries management and to ensuring sustainable fisheries and strong economic opportunities for fishermen and coastal communities.

Implementing the Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Act created broad goals for U.S. fisheries management and a unique, highly participatory management structure centered on the eight Regional Fishery Management Councils (Councils). This structure ensures that input and decisions about how to manage U.S. fisheries develops through a "bottom up" process that includes fishermen, other fishery stakeholders, affected states, tribal governments, and the Federal Government. The Councils are charged with developing fishery management plans to "achieve and maintain, on a continuing basis, the optimum yield from each fishery." The Councils can choose from a variety of options to manage fish stocks—quotas, catch shares, area closures, gear restrictions, etc.—and also determine how to allocate fish among user groups. These measures are submitted to the U.S. Secretary of Commerce for approval and are implemented by the National Marine Fisheries Service.

The Magnuson-Stevens Act guides fisheries management by 10 National Standards for fishery conservation and management. These standards, which have their roots in the original 1976 Act, provide a yardstick against which all fishery management plans and measures developed by the Councils are measured. National Standard 1 requires that conservation and management measures prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the U.S. fishing industry. Optimum yield is the average amount of fish from a fishery that, over the long-term, will provide the greatest overall benefits to the Nation,

[1] National Marine Fisheries Service. 2010. *Fisheries Economics of the United States*, 2008. U.S. Dept. Commerce, NOAA Tech. Memo. NMFS-F/SPO–109, [177 pp].

particularly by providing seafood and recreational opportunities and affording protection to marine ecosystems.

Thus, the Councils in developing their plans must carefully balance fishing jobs and conservation. Other National Standards mandate that conservation and management measures be based upon the best scientific information available, not discriminate between residents of different States, take into account variations in fisheries and catches, minimize bycatch, and promote the safety of human life at sea.

Working with the Councils, coastal states, and a wide range of industry groups and other constituents, NMFS has made significant progress in implementing key provisions of this legislation. For the rest of this testimony, I want to focus on progress implementing some of the key domestic provisions of the Magnuson-Stevens Act and the results that we are already seeing with the modernization of fisheries management.

Progress Implementing the Magnuson-Stevens Act

Implementing Annual Catch Limits

One of the most significant new management provisions of the 2007 Magnuson-Stevens Act reauthorization is the mandate to implement annual catch limits, including measures to ensure accountability and to end and prevent overfishing in federally-managed fisheries by a certain deadline.

Overfishing has both ecological and economic impacts for the U.S. Overfishing reduces fish stock abundance, threatens and alters the coastal and marine ecosystem productivity and negatively impacts the economy. Depleted fish stocks reduce the Nation's supply of U.S. wild-caught seafood and recreational opportunities, resulting in economic revenue and employment losses, particularly in coastal economies. Overfishing also contributes to increased dependence on foreign seafood imports, often from countries using fishing practices that are more harmful to ocean ecosystems. Overfishing jeopardizes the health of fish stocks and ecosystems, the economic viability of the fisheries, and the economic and cultural heritage of fishing-dependent communities. Moreover, there are long-term economic benefits to rebuilding our stocks. We estimate that if all stocks were rebuilt and harvested at maximum sustainable yield, it would generate an additional $31 billion in sales impacts, support an additional 500,000 jobs, and increase ex-vessel value by $2.2 billion.[2]

As noted in the 2007 reauthorization's Senate report, "requiring routine adherence to an annual catch limit or TAC [total allowable catch] is a well-known management approach that has been utilized effectively by several Councils, but failure to adopt this technique more broadly has contributed to continued overfishing." Federal fishery management plans now must establish mechanisms for annual catch limits and accountability measures such that overfishing does not occur, with exceptions for stocks with a life cycle less than one year or stocks otherwise provided for under an international agreement in which the United States is a participant. Annual Catch Limits were in place by 2010 for stocks subject to overfishing and must be put in place by 2011 for all others. If the limits are exceeded in a fishing year, accountability measures should provide for adjusting harvest levels within the season or setting responsive levels for the following year. This is an important move away from a management system that could only be corrected by going back through the Council process—often taking years to accomplish, all while overfishing continues. Now, when developing a fishery management plan or amendment, the Councils must consider the actions that will result if a fishery does not meet its performance objectives.

Toward this end, NMFS has been working closely with the Councils to ensure compliance with these requirements and statutory deadlines. In January 2009, NMFS published new guidance on ending overfishing and implementing annual catch limits through revised National Standard 1 Guidelines. Most significantly, the National Standard 1 Guidelines describe how scientific and management uncertainty should be taken into account as Councils establish annual catch limits and accountability measures. NMFS is also working to ensure that the Councils have the best available science upon which to base annual catch limits and that they are accompanied by effective and credible accountability measures to prevent catch limits from being exceeded and to make necessary adjustments, if these limits are exceeded.

The strict deadlines for implementing annual catch limits required, in many cases, difficult decisions and short-term sacrifice on the part of commercial and rec-

[2] Internal analysis using the National Marine Fisheries Service Commercial Fishing & Seafood Industry Input/Output Model. For additional information on this model, see "The NMFS Commercial Fishing & Seafood Industry Input/Output Model." available at *https://www.st.nmfs.noaa.gov/documents/Commercial%20Fishing%20IO%20Model.pdf*.

reational fishermen. We recognize this sacrifice and are working to provide the Councils with the best scientific and economic information available upon which to base management decisions, to ensure that management actions are as precise and focused as possible. However, history has shown that effective management does end overfishing. For example, overfishing of North Atlantic swordfish occurred from 1998 to 2002, but has not occurred since, due to action taken by NMFS and the International Commission for the Conservation of Atlantic Tunas to lower catch quotas and close areas to protect juveniles. This fishery is now rebuilt. In the Pacific Northwest, lingcod was designated as overfished in 1999, with overfishing occurring for several years. Quotas, trip limits, depth restrictions, size limits, seasonal closures, and gear restrictions ended lingcod overfishing in 2005, and the stock was rebuilt several years ahead of schedule. Atlantic sea scallops were once severely overfished, but with cooperation from scallop fishermen the stock was rebuilt in 2001 and is now the top-valued fishery in the United States. Compared to the 1990–1999 time period when scallops were overfished, New England scallop fishermen are now sustainably harvesting an additional 17.5 million metric tons per year (131 percent higher landings) and ex-vessel revenues have increased by $93 million annually.

Rebuilding Overfished Stocks

In addition to measures to end and prevent overfishing, the Magnuson-Stevens Act includes actions to rebuild any overfished fishery. If a stock is determined to be overfished, a Council, in coordination with NMFS, must immediately end overfishing on the stock, and within 2 years of the determination, develop and implement management measures to rebuild the stock to healthy levels. The requirement that rebuilding measures immediately end overfishing was added by the 2007 reauthorization. Rebuilding of overfished fisheries is required in as short a time as possible taking into account the status and biology of the stock, needs of fishing communities, international commitments, and the stocks' interactions within the marine ecosystem. In addition, the time period for rebuilding cannot exceed 10 years except where biology, environmental conditions, or international agreements dictate otherwise.

Measuring Progress in Eliminating Overfishing and Rebuilding Stocks

Between 2000 and 2010, there have been a total of 84 stocks on the overfished list; in that same timeframe, 36 stocks have come off the list. Similarly, there have been a total of 76 stocks subject to overfishing; 36 stocks have come off that list. There are currently 48 stocks that are overfished and 40 stocks subject to overfishing.

For fisheries subject to the 2010 deadlines, the Councils have taken final actions to end overfishing and put annual catch limits in place. The Councils and NMFS are also on track to meet the 2011 deadline to have annual catch limits in place for all managed stocks. Even though measures have been implemented to end overfishing, we will still report stocks as subject to overfishing until a new stock assessment confirms that the management measures were successful. Preventing future overfishing will be maintained only through continued strong science, monitoring of fisheries, and adaptive management that can quickly respond to new information and problems that may arise. Also, ending overfishing is only one part of sustainable fisheries. For stocks that are overfished, we need to continue our efforts to rebuild those stocks.

Our progress and performance is also tracked by the Fish Stock Sustainability Index, an overall index of sustainability for 230 U.S. fish stocks selected for their importance to commercial and recreational fisheries. The Fish Stock Sustainability Index tracks both improvements in our knowledge about fish stocks, as well as performance in ending overfishing and rebuilding stocks. According to the 4th Quarter Update of the Status of U.S. Fisheries for 2010, our index score increased by 63 percent over the last 10 years (from 357.5 to 583 points out of 920 possible points). Twenty one fish stocks have been rebuilt in this same time period. The Fish Stock Sustainability Index will continue to increase as overfishing ends and stocks rebuild to the levels that provide for maximum sustainable yield.

Limited Access Privilege Programs

The 2007 reauthorization also added a new Section 303A, which established rules governing the development and use of Limited Access Privilege Programs in fisheries where Councils have voluntarily adopted this management approach. Limited Access Privilege Programs include programs that allocate harvest privileges exclusively to individual entities, and the recipient of the harvest privilege is directly accountable to stop fishing when its exclusive share or allocation is reached. These

programs were first implemented in the 1990s in the surf clam/ocean quahog, wreckfish, and halibut/sablefish fisheries.

Limited Access Privilege Programs provide a valuable fishery management tool that can play a significant role in meeting our national goal of rebuilding and sustaining our U.S. fishery resources. While not appropriate for all fisheries, Limited Access Privilege Programs can bring a wide range of social, economic, and biological benefits to a fishery. For example, these approaches can eliminate the undesirable "race-to-fish" or fishing derby conditions, thereby improving safety for fishermen. They have also demonstrated increased landings, reduced bycatch, improved stability and increased season length in some fisheries. These conditions encourage product innovation, encourage savings in fishing costs and result in higher profits. For example, in the long-overfished Gulf of Mexico commercial red snapper fishery, quotas were regularly exceeded and fishing derby conditions were resulting in shorter and shorter seasons. In 2007, an individual fishing quota program was implemented as well as measures to end overfishing. Since then the commercial season length has been extended from an average of 88 days before the individual fishing quotas to year-round access after program implementation. In combination with other favorable factors, the quotas have also been increased. Additionally the share price, which reflects the long-run expectations of economic returns, has more than doubled since program implementation and ex-vessel prices for red snapper had increased by 14 percent (6 percent when adjusted for inflation).

In many cases, Limited Access Privilege Programs can also help modernize a fishery. In particular, these programs tend to require more detailed and timely monitoring of the landings of the individual entity holding the harvest privilege. This both ensures transparency in the program, and facilitates market-based transfers between eligible entities, which drives economic efficiency. With this, the quality and quantity of fishery data improve significantly through new catch accounting, monitoring and compliance systems, as well as improved tracking systems for social and economic outcomes. These requirements improve our scientific estimates of overfishing levels and reduce scientific uncertainty in setting annual catch limits. With more precise scientific data, further increases in allowable biological catches are often possible.

The most recent program, the Northwest trawl individual transferable quotas program, is a significant achievement modernizing the management of this major U.S. fishery that was developed over many years with significant input from industry groups in the Council process. This program, as all other fishery management programs in the U.S., will continue to evolve and adapt to meet changing management objectives identified by NMFS, the Councils, and industry.

Limited Access Privilege Programs are a type of catch share program. Catch share is a more general term used to describe fishery management programs that allocate a specific portion of the total allowable catch to individuals or other eligible entities. In November 2010, NOAA released a catch share policy. The policy supports the voluntary consideration of catch shares by Councils in fisheries they deem appropriate by removing impediments to the consideration of catch shares, and informing and educating stakeholders of the different options and capabilities of catch share programs. The policy aims to support well-designed catch share programs to help maintain or rebuild fisheries, and sustain fishermen, communities, and vibrant working waterfronts, including the cultural and resource access traditions that have been part of this country since its founding. The policy explicitly recognizes that catch shares may not be the best management option for every fishery or every sector of a fishery and that NOAA will not require catch share programs. The development of catch share programs should be based on close collaboration with Federal, state, and industry partners through the council process to evaluate catch share options and design programs that meet the needs of their unique regional fisheries.

Improvements to Science and Recreational Fisheries Data to End Overfishing

Science-based decisionmaking is at the core of the Magnuson-Stevens Act. Each year, NMFS conducts stock assessments around the country which include rigorous peer review processes to ensure the best available results. All eight Regional Fishery Management Councils now have functional Science and Statistical Committees that provide science-based acceptable biological catch recommendations for stocks in a fishery that the Councils must follow when establishing management measures. The Councils and their Science and Statistical Committees also more consistently account for scientific uncertainty in the stock assessments and management uncertainty in the fishery. Based on these uncertainties and where data permits, they are developing control rules that identify the risk of overfishing stocks or exceeding an annual catch limit under different management scenarios. They are also making

recommendations about what data is needed to improve management for various fish stocks.

NMFS continues to strive to improve our scientific knowledge of marine fisheries. The President's FY 2012 budget includes an increase of $15 million to improve Expanded Stock Assessments. These funds would improve assessments for high priority stocks; update assessments for stocks more frequently; and conduct fishery-independent surveys to enable assessment of more stocks, including data poor stocks. High priority stocks include commercially and recreationally valuable stocks and associated fishery-limiting stocks with high scientific or management uncertainty influencing annual catch limits, as well as those that were previously experiencing overfishing to verify that overfishing has ended. All regions of the Nation have some assessments that will benefit from these increased funds.

A workshop with 43 participants from NMFS, the Councils' Scientific and Statistical Committees, and academia was held February 15–17, 2011, to explore the science needed for even better implementation of annual catch limits. Within each of eight topics, the workshop explored feasible improvements for the next 5 years. Increasing data collection, including advanced technologies and cooperative research, and more methods standardization were key findings to support a faster tempo of assessment updates needed for annual catch limit determinations. NMFS will release a report of these discussions and seek additional input on these topics.

Cooperative research with the fishing industry is another useful component to ensuring sustainable fisheries. For example, the development of the Ruhle trawl for the New England groundfish fishery resulted in gear that retains abundant haddock and eliminates overfished cod and flounder. Pelagic longline fishermen in the Atlantic worked with NMFS to demonstrate that new circle hook and bait requirements could reduce sea turtle interactions in Atlantic swordfish fisheries. When the $20 million Hawaii-based pelagic longline fishery was closed in 2001 due to turtle interactions, these innovations from the Atlantic allowed the Hawaii-based fishery to reopen.

The Magnuson-Stevens Act also required improvements to recreational fisheries data collected by NMFS for use in management decisions. In October 2008, NMFS established the Marine Recreational Information Program, a new program to improve recreational fishery data collection efforts, consistent with the Magnuson-Stevens Act requirement and the 2006 recommendations of the National Research Council. The Marine Recreational Information Program is a national system of coordinated regional data collection programs designed to address specific needs for improved recreational fishing information. The design of regional programs is guided by research projects which provide recommendations for modifying or developing new survey methods. The President's FY 2012 budget includes an increase of $3 million to improve the timeliness and quality of catch monitoring in recreational fisheries. This includes funding to implement monthly, rather than bimonthly, surveys of fishing effort to support updates to catch estimates in the Southeast and Northeast Regions and to initiate electronic trip reporting and dockside validation of such trip reports in "for-hire" fisheries in the Southeast and Northeast Regions.

In January 2011, NMFS submitted a report to Congress, entitled "Counting on the Future of Recreational Fishing," as required by the Magnuson-Stevens Act. That report provided specific documentation of the actions NMFS has taken to implement the statutory requirements, including the requirement to implement the recommendations of the National Research Council review to the extent feasible. Overall, the report concludes that NMFS is on track toward fully implementing new requirements of the law through a deliberate, scientifically rigorous process engaging a broad and diverse range of scientists, state and Federal agency partners, Fishery Management Councils, Marine Fisheries Commissions, government and non-government marine scientists, stock assessors, recreational fishermen, ocean conservationists, business people, coastal communities, and others.

One major component of the Marine Recreational Information Program is the development of a national registry of anglers, also required by the Magnuson-Stevens Act, which will significantly improve the quality of recreational fishing data. Since January 2010, anglers and for-hire fishing vessels that fish in the Exclusive Economic Zone or who fish for anadromous species have been required to register with NMFS (or a cooperating state agency) so we can better collect effort and participation information. Using these lists of known anglers as the basis of telephone and mail surveys will significantly improve the efficiency of recreational data collection and the quality of recreational fishing data.

The Marine Recreational Information Program is also developing and implementing numerous other survey improvements to address the National Research Council's recommendations. Improved survey methods will be phased in beginning this winter with the implementation of a new, unbiased estimation method that will

re-estimate Atlantic and Gulf of Mexico recreational catches based on data collected in 2011 and prior years by the Marine Recreational Fishery Statistics Survey. Complementing the improved estimation method, an improved shoreside survey design has been tested for collecting catch data needed for estimating total catches of different fish species. This new design will be implemented in 2012 to further improve the accuracy of recreational catch statistics for the Atlantic and Gulf States. Other survey improvements to address the National Research Council panel's recommendation regarding sources of potential bias and improvements in for-hire fishery data will also be completed and implemented over the next 2 years.

Challenges

Despite considerable progress, challenges still remain, including continuing to increase the quality and quantity of scientific data, dealing with difficult transitions to a more biologically and economically sustainable condition, and ensuring that resource allocations are fair and equitable.

Annual catch limits and accountability measures require improvements to our stock assessments and monitoring efforts. They call for us to look ahead to the catch levels that will prevent overfishing. Solid, science-based determination of these levels needs better linkages to ever-shifting environmental and ecosystem conditions. Moreover, U.S. fisheries are extraordinarily diverse in value, participation, and science needs. Our science efforts strive to balance these needs, by conducting the best possible assessments of our more important stocks, and conducting at least baseline monitoring of all fished stocks. We struggle with implementing annual catch limits, in particular, for fisheries with stocks that are considered data-poor or for which monitoring improvements are needed. Together with our partners, to address these situations, we continue to explore alternative approaches that will produce the best available information to incorporate into management. In light of climate change and ocean acidification, it is increasingly important that we start to understand ecosystem factors and incorporate them into our stock assessments and management decisions as well.

The development of Limited Access Privilege Programs has raised concerns from fishermen with respect to a variety of issues ranging from consolidation to loss of community access to monitoring costs among others. As we move forward in our development and implementation of these programs, we are firmly committed to working with the Councils, fishermen, and the broader fishing community to help them consider the multitude of options a properly designed program can offer to address these potential challenges.

Rebuilding fish stocks provides an opportunity to consider allocation of resources among different users without necessarily reducing the allocation of one stakeholder group at the expense of another. Allocation discussions are challenging and can harden the lines and attitudes of some stakeholders because of the real or perceived loss of fish. However, as fishery resources increase, we can have a more fruitful discussion about allocation in light of conservation, social, and economic objectives of fisheries management. We need to recognize that many people have made sacrifices and acknowledge that short-term hardship was suffered with the expectation of future benefits, but we also need to look at the greatest net benefit to the Nation. We are starting to examine this issue in more depth to determine if any new guidance or policy would assist the Councils when they consider National Standard 4—ensuring fair and equitable allocations—in their deliberations during the development of fishery management plans.

The combined effects of implementing the Magnuson-Stevens Act will result in: (1) increases in allowable harvests in some fisheries over time; (2) improved stability and predictability in most stocks; and (3) more stable incomes and increased profitability in catch share fisheries. Achieving these benefits will not happen quickly or easily. These changes take time and require some significant short-term sacrifices by fishermen who participate in these fisheries. Challenges in the short-term include:

- Ending and preventing overfishing by means of annual catch limits may mean lower harvests and incomes in the short-term;
- Rebuilding overfished stocks, especially those with long rebuilding periods, involves a difficult transition while the stocks recover;
- Improved scientific information depends on adequate support for stock assessments and other research programs, an uncertain proposition in light of the prevailing budget austerity;
- Achieving our goals with respect to marine recreational registries and data will depend on the continued cooperation of the coastal States and recreational community; and,

- Finally, addressing all of these issues and keeping us on track will require a continued adaptive and participatory management process, which will enable us to deal effectively with new information and ecosystem changes.

While in the short-term, it may require sacrifices by fishermen, following through on the steps being taken now will provide significant long-term economic benefits to fishermen, coastal communities, and the Nation. As previously mentioned, if all stocks were rebuilt allowing harvest at maximum sustainable yield, we estimate this would generate an additional $31 billion in sales impacts, support an additional 500,000 jobs, and increase ex-vessel value by $2.2 billion.

NMFS is mindful that all of these activities and efforts are occurring in the midst of one of the most difficult economies we have seen in years. As some fishermen make sacrifices to comply with these new requirements, the state of our national economy is undoubtedly compounding the weight of their sacrifices.

Conclusion

It is important to keep in mind that sustainability of our Nation's fisheries, the goal of the Magnuson-Stevens Act, is something that is maintained. Our living marine resources and the marine environment is dynamic—constantly changing—and we need to have adaptive, responsive management to sustain successful fisheries management. We have mechanisms in place through the public, transparent Fishery Management Council process and through our science and management programs to monitor the status of fish stocks regularly, annually when we can, and respond quickly to changes in stock abundance, especially if any overfishing is detected.

We have dedicated significant funding to achieve the 2007 reauthorization's objectives. A total of $153.4 million is included in the President's FY 2012 budget request to support implementation of the Magnuson-Stevens Act. Funding increases have been received each year since 2008 to support a phased-in approach to implementing the new provisions of the Act. This funding supports a wide variety of activities undertaken by NMFS and the Councils, including developing and implementing annual catch limits, expanding stock assessments and improving commercial and recreational fishery statistics, supporting at-sea observers, peer review of scientific information, cooperative research, Limited Access Privilege Programs, enforcement, bycatch reduction, economics and social science research, deep sea coral research and technology, and international efforts.

Funding uncertainties may seriously affect implementation of the Magnuson-Stevens Act. Congress provided NMFS with significant resources in FY 2010 to achieve these mandates including funding for annual catch limits, stock assessments, and recreational fisheries data collection. Significant deviations from the President's FY 2012 budget request, let alone reductions below the FY 2010 level, would constrain our ability to achieve our long-term objectives.

We are now in a unique position to ensure that the Nation's marine fisheries are both biologically and economically sustainable in the future. Implementing the Magnuson-Stevens Act's provisions to end overfishing and rebuild stocks through the partnership between NMFS, the Regional Fishery Management Councils, the commercial and recreational fishing industry, environmental groups, and the public is the key component in ensuring this future. With continued support we will make substantial progress toward science-based, effectively managed, and economically viable commercial and recreational fisheries that will benefit coastal communities and the Nation as a whole. As noted, the potential economic and social benefits of rebuilt fisheries we stand to gain are considerable. The Magnuson-Stevens Act provides great flexibility in adapting rebuilding plans to the life history differences among species and nuances of particular fisheries. The requirement for timely rebuilding of stocks within the context of gaining improved economic performance from rebuilt fisheries has already resulted in a number of successful rebuilding programs—such as for Atlantic sea scallop, lingcod and swordfish—and much improved resource conditions for others, such as the groundfish complex on the West Coast. Over the next few years, having eliminated overfishing for the 40 stocks where such conditions now exist will add to this list of successful rebuilding plans.

As fisheries rebuild, they will also provide social benefits. More stable fisheries should ease some of the stress on industry participants that we have seen in recent years. Limited Access Privilege Programs can contribute to stabilizing the economics of coastal communities. Ending the "race-to-fish" and reducing overcapacity should produce continued improvements to the safety of fishermen at sea. The projected improvements in economic performance of U.S. fisheries should result in an increase in employment in the domestic seafood industry and more stable income to participants. Importantly, future generations of Americans will be able to enjoy abundant and productive marine recreational fisheries. Overall, robust commercial and recreational industries will generate billions of dollars of economic activity cross the

broader U.S. economy, rippling outward from the marine sector to support sales and employment in manufacturing, wholesale, and retail along the coast and providing an economic engine for sustaining working waterfronts and economically resilient coastal communities.

Senator BEGICH. Thank you very much. Thanks for your testimony.

What I'd like to do is ask Senator Snowe if she wants to go through her questions. And we'll do this in 5-minute increments. And then the list will go as follows: Kerry, Rubio, Cantwell, Nelson.

Senator Snowe.

Senator SNOWE. Thank you.

Welcome again, Assistant Administrator Schwaab. I appreciate that you attended the Fishermen's Forum in Maine over the weekend.

I want to address the issue of the sector-based approach, because it is critical to our industry. And what I heard repeatedly at the Fisherman's Forum—and I'm sure you did, as well—is the fact that fishermen want sector management to continue, because it's an improvement compared to the fluctuations and the extensive nature of the regulations that were implemented this last decade in particular, including the Days-at-Sea regime which I went through in my opening statement. The fact is, that numbers coming in so far are evidence that the sector-based approach is working. I wonder if it would have been different with the Days-at-Sea management regime. For example, as I mentioned earlier, we are seeing increased revenues for haddock. Also, looking at these charts, I see that the catch of underutilized stocks has increased slightly, and that's an increase over what would have been caught under Days-at-Sea and the revenues that would have been generated under Days-at-Sea. Finally, under sectors the groundfishery has been catching fewer fish from overfished stock, compared to under Days-at-Sea.

One of the concerns that was expressed at the Fisherman's Forum was that somehow the sector-based approach might not last or stay in place. So, first and foremost, I think it's important to get assurances that we can continue this program, even if it needs some changes, such as increased limits on some of the species within the groundfishery, which I'll talk about in a moment.

Mr. SCHWAAB. Thank you, Senator Snowe.

It is true that there have been significant signs of promise in sector-based management. Obviously, as we faced the increasingly tight catch limits, particularly for a number of stocks in the groundfish fishery, going forward into the current fishing year, there were concerns that, under a days-at-sea management system, continued declines in opportunity would have put increased—an intensive pressure on many aspects of the fishery.

We do know that there are concerns that need to be addressed, going forward. But, at the same time, we also know that there are some very positive signs associated with sector-based management. Many fishermen who feel that it has, even under tight catch limits, given them the flexibility that they need to fish more efficiently, to time markets more effectively, to avoid limiting stocks. One of, I think, the under-acknowledged benefits of sector-based management so far, has been the significant reduce in discard waste and

what that will have—the effect that that will have going forward with rebuilding programs.

What—we do see sector-based fishermen fishing more effectively around the more limiting stocks, thereby securing—taking greater advantage of the healthier stocks. That is something that we hoped that sector-based management would allow. It is something that we do see happening. And obviously, of—the goal of securing and catching a higher portion of those healthier stocks is something that we all share. It's been a problem in the fishery for a long time, and it's something that we think sector management will help to address.

Senator SNOWE. First of all, you think that we should stay the course in sector-based management. Is that correct?

Mr. SCHWAAB. Yes. Obviously there are some adjustments that might be called for. But, in general, staying the course is the right plan of action.

Senator SNOWE. Second, you also agree, from what you have said, that there have been some positive preliminary results under the sector-based approach, such as increased revenues.

Mr. SCHWAAB. Yes. So, we've seen increased dockside revenues. Some of that may be attributable to sector-based management. We certainly can't claim that to be the case universally. But, there has also been, we think, as you indicated in your question—in your initial question—opportunity for fishermen to more effectively secure a higher percentage of the healthier stocks, going forward, which will have significant benefits for the industry in the short term and long term.

Senator SNOWE. How will that happen? That's the other part of the question. There are at least 7 of the 19 stocks within groundfishery that have been rebuilt and the central issue is whether or not we could increase total allowable catch for those stocks, because it really is important for the community. Is there a possibility of getting a mixed-stock exception?

Mr. SCHWAAB. Well so, there are——

Senator SNOWE. For those species?

Mr. SCHWAAB. I'm sorry.

Senator SNOWE. Yes.

Mr. SCHWAAB. There are several components to this. First is securing a higher percentage of the available stocks before—particularly as it relates to healthier stocks—before the fishery is constrained by needed actions to protect the more limiting stocks. That is happening now. A second part of this is that we will see, as this rebuilding process unfolds, catch limits increase for a number of stocks that will provide greater opportunity for fishermen in the future. Of course, the third component of that is continuing to refine the science so that, where we have data that suggests improvements that are quicker than what were anticipated, we can take more timely action.

Senator SNOWE. Thank you.

Senator BEGICH. Thank you very much.

Senator Rubio.

STATEMENT OF HON. MARCO RUBIO,
U.S. SENATOR FROM FLORIDA

Senator RUBIO. Thank you.

And thank you, gentlemen, for appearing here before us today.

Before I ask my question, I just want to kind of lay out how important this issue is for Florida, from an economic standpoint. I'm sure you're both aware of it. And I know Senator Nelson will be back in a minute; he'll talk about this, as well.

But, from Florida, this is almost a $13-billion-a-year industry, and more than half of that is in the recreational fishing endeavor. In fact, we've got over about 131,000 jobs in Florida that are built on the recreational fishing.

And I think there are two starting points for my question, and—that I think we all agree on. The first is a sustainable fishery, is that—is a goal we all share. And, in fact, I don't think anyone has a bigger stake in that than the fishermen, themselves. And the second is that, in order to have a good management plan, we have to have good data, and that the decisions that are being made have to be driven by the data. And, of course, that—number three, that data has to be used effectively.

What we can't afford to do is arbitrarily shut down fishing, based on incomplete or insufficient data, for a lot of different reasons.

First of all, the economic impact of it is absolutely devastating. Last year, when I traveled the state, I was campaigning at the time, and I ran into people who were being wiped out by, not just some of these restrictions that had been put in place, but they also got hit with an oil spill in parts of our state, which was a double whammy. And it was just devastating for many of these folks that they couldn't get going again. And I'm not sure they're going to be able to get going this year.

The second is that it undermines the legitimacy of these laws. When it's not based on data that people believe in or that they can see, it undermines the legitimacy of the law. It undermines the agencies that are trying to implement the law. And I would add that one of the things that it does is it creates this rift, this fight between two parties that I think have the same interest in mind, and that's protecting the stock. But, it creates this fight between them that, again, is driven by the fact that they know that these decisions aren't being made on data that's accurate, because it's not being shown to them.

So, obviously, I think data, as far as the Florida perspective and probably at the national perspective, is critical to all of this. And that's why I'm puzzled as I looked at some of this. It appears the Administration has transferred about $6 million from the Cooperative Research Program to the National Catch Share Program; and then it transferred another $11.4 million from the Fisheries Research and Management Program to the Catch Share Program. And so, my question is, if data—is data a priority—data collection, accuracy of the data a priority? And, if it is, why isn't it being reflected, at least in my mind, based on what I'm reading, on the way we're funding some of these programs?

Mr. SCHWAAB. Thank you, Senator.

Data is a priority. There are several elements to that. Obviously, biological data is a big part of that question. Catch-and-effort data

are a big part of the question in the recreational industry, as well as in the commercial and the for-hire sectors. So, those are a priority. Those have been reflected, I think, substantially in a number of our actions.

In 2010, we had an increase in our stock assessment line item of approximately $10 million. Because of the particular concerns in the Southeast, we did dedicate approximately half of that increase to the Southeastern part of the country to deal with some of the particular data-poor challenges down there. As I indicated in my opening statement, the President's budget for Fiscal Year 2012 does propose another $15 million increase in stock assessment data. At the same time, we do have to take steps to improve some, for the long-term, of our management approaches.

And we see investment in catch share line item—in the catch share line item, as a way to, over the long-term, improve the efficiency of our management efforts, vest more authority in the hands of the fishermen to make day-to-day management decisions; thereby, over the longer term, freeing up more resources within the agency to focus on, not only these stock-specific data challenges that we face now, but some of the broader challenges that we face in years ahead, going forward.

Also, the last thing I would note is that we do, obviously, derive significant amount of data from the increased observer and monitoring coverage that is associated with catch-share-based systems. And that data does then feed right back into the management decisionmaking process.

Senator RUBIO. But, if I may, we have some fisheries, particularly in the recreational realm, that we have very poor data on, and some that we've had no assessments done on whatsoever. Has there been, ever, any consideration or thought that maybe we shouldn't be putting limits on these fisheries until we actually know what we're basing it on?

Mr. SCHWAAB. So, there are obviously a range of challenges that we face there. Some of those that deal specifically with data-poor circumstances are one that, frankly, from the science perspective, we've been placing a great bit of attention on in recent months and even years.

And, if it's OK with you Senator, I would defer to Doug DeMaster to say a few words about some of those efforts.

Dr. DEMASTER. I'm Doug DeMaster. I'm the Director of the Alaska Fisheries Science Center, from Juneau, Alaska. I'm the Acting Chief Scientist for National Marine Fisheries Service.

The question about data-poor stocks is an important one. There has been considerable effort, at our National Stock Assessment Workshops, to address this. We've worked specifically with the SSCs in the south Atlantic and the Gulf Coast. We have four, kind of, specific approaches that we want to test, in terms of computer simulations, to see how well they perform.

But, I should start out by saying that, when you're trying to manage a fishery on catch or landing data alone, you're in a risky position. All of the history we have, and our experience, suggests that catch data alone—it's very difficult to manage fisheries properly.

That being said, if you have assessment scientists who have some sense of the status of the stock—Are they depleted or not depleted? Are they productive or not productive? Do they have—are they long-lived or not?—those are the features that go in—or some of the assumptions that are made in using these catch-only assessments for data-poor stock. So, we are developing those.

We recognize, in the south Atlantic and in the Gulf, we need to improve our throughput, in terms of stock assessments. So, certainly considerable effort is going to be put into trying to increase the number of assessments—in particular, for these data-poor stocks.

Senator BEGICH. Senator Rubio, if I can interrupt, we're—I'm going to allow a second round. I—people have gone a little bit over. So, if I can have you hold there, if that's OK.

Senator Cantwell?

STATEMENT OF HON. MARIA CANTWELL,
U.S. SENATOR FROM WASHINGTON

Senator CANTWELL. Thank you, Mr. Chairman.

And it—I know I wasn't here at the beginning of the hearing, but I wanted to say a congratulations to you on your new position, and——

Senator BEGICH. Thank you.

Senator CANTWELL.—to thank Senator Snowe for the time we worked together, for the last 4 years, as I was the Chairman of this subcommittee.

But, Mr. Chairman, you know that there is no more pertinent relationship between Alaska and Washington State than the fishing industry, itself. And I know you know how many jobs are at stake. But, I think Alaska produces something like $3.7 billion in sales and 48,000 jobs; Washington State is about $3.7 billion and 72,000 jobs. So, I certainly look forward to working with you, as the new Subcommittee Chairman, on these important issues.

And, I guess it's apropos, because this morning's, you know, conversation is about resource management strategies and questions. And Washington and Alaska, I think, have proven that managing these resources in a sustainable way produces the best outcome, in the long run, for the industry, and the economic impact.

I noticed this ad that was in *Politico,* "Catch Shares Work," and all the various sectors there of people who have benefited from that. So, a very interesting hearing this morning.

But, I do, Mr. Schwaab, have a very specific question for you on groundfish, because we've, obviously, been trying to rationalize that. And people are anxious, because this continuing resolution could undercut the implementation of that. So, I want to ask you specifically, on the record, if we are going to have the resource—can you commit that the West Coast groundfish catch-share funding will be a top priority for your agency?

Mr. SCHWAAB. Senator Cantwell, yes, we can. We certainly appreciate the intensive effort in developing that program, put forth by the Council, put forth by the fishermen of the region. We recognize how important it is to them, going forward. We also recognize the importance of some of the commitments made by the agency in providing transitional support in funding for significant portions of

the observer and monitoring costs. Obviously, there's significant uncertainty in the long—in the prospects for the current fiscal-year budget. We recognize how important that funding is. It is a top priority for us. And we will do everything within our power to see that we meet the commitments that have been made there from the agency.

Senator CANTWELL. So, the implementation funding will be there.

Mr. SCHWAAB. We will—it is a top priority—we will do everything within our power to make sure that happens.

Senator CANTWELL. Well, I think you know how important this industry is, and the policies that it represents, so——

And I also just want to bring out another point. You know—and when we were talking about the catch-shares strategies—and I know this is a larger discussion, but—you know, when it comes to, you know, the Alaskan/Washington fishing industries, have these decisions on catch shares been made by the Fisheries Service or by the regional fishery organization councils—the management councils?

Mr. SCHWAAB. These—thank you, Senator—these decisions are made by the Fishery Management Councils. In many cases, such as the one just cited, the Trawl IQ in the Northwest, they have been long-term under development. It is a tool that the agency thinks is an important tool. And we have encouraged the councils to explore that tool. But, the decision to adopt the tool, and the important design elements that are infused in the process, once that decision to adopt is made, are purely—are purely at the——

Senator CANTWELL. Bottom up.

Mr. SCHWAAB. I'm sorry?

Senator CANTWELL. Bottom up.

Mr. SCHWAAB. Purely bottoms up. Purely at the discretion of the council.

Senator CANTWELL. Well, I hope that we can, you know, show the success that we've had in the north Pacific. And that the Council's work is critical to making those decisions; and, certainly, once those decisions are made, like on the groundfish, that we get the resources for implementing them.

So, thank you, Mr. Chairman. And again, I look forward to working with you on this important committee, in the interests of our region.

Senator BEGICH. Thank you very much, Senator Cantwell. And I do want to also thank you for your work here on the Committee. I've only been on it for 2 years, but had a chance to sit in on many opportunities, when you've put them on the table. And there is no question the relationship between Alaska and Washington, when it comes to our industry, is long and has a great future, also. So again, thank you for the opportunity to——

Senator CANTWELL. Two years, and you're already the Chairman.

[Laughter.]

Senator BEGICH. I don't know if that's good or bad, but——

Senator CANTWELL. It's very good——

Senator BEGICH.—it feels good.

Senator CANTWELL.—Mr. Chairman.

Senator BEGICH. It feels good. Thank you.

Senator Rubio, you had some folks you want to just quickly introduce. And then I'm going to——

Senator RUBIO. I do.

Senator BEGICH.—go ahead with my questions.

Senator RUBIO. And I apologize I'm—I have another meeting to leave to.

But, I wanted to welcome two Floridians, Mr. Bill Bird and Dr. William Hogarth, who are going to be part of the next panel. I wanted them to know I read their testimony and their statements. And I appreciate your input on this.

And I want to thank you, Mr. Chairman and the Committee, for holding these hearings. These are of critical importance in our state.

And thank you, gentlemen, both for being here today and being a part of this.

Senator BEGICH. Thank you very much, Senator Rubio.

Just—I know usually the chair would ask questions first. But, I'd prefer to just give as much time to other members. But I'm—now I'm at the end of the line, so I'll ask a few questions, if I can.

I want to follow up on something Senator Cantwell asked, but in kind of a specific, but a broader sense. And I was—you were very careful with your words. You said implementation funding will—you want to make sure it's there. So, let me ask it a different way. Did you ask for the money necessary for the implementation?

Mr. SCHWAAB. Yes, sir, we did, both in the Fiscal Year 2011 budget request and again in Fiscal Year 2012.

Senator BEGICH. OK. And that is in the current budgets that are in front of us, 2012, but also 2011, which we're muddling through as it's—working through it.

Mr. SCHWAAB. Correct.

Senator BEGICH. OK. To a broader question, if I can. Do you, for all the stock assessments that are necessary—and, of course, in Alaska it's, as you know—and we're very proud of our fisheries, and I think stock assessments and this science and research is critical for us to do the work we're doing; sometimes, as I like to say, the fish wars are not always fun, but if we have sustainable stock at the end of the day, that's good—do you believe, in both the 2011—but really let's focus on the 2012 budget, if we could, because 2011—it's hard to say how this story will unfold, but let's go to 2012 budget—do you believe you have the resources—let me put it in two parts.

Did you request resources, that maybe OMB might have shaved down, based on what you think is necessary, versus what they think, in a broader sense of the budget? I hate to be so specific, but this is where I like to get to.

Mr. SCHWAAB. Yes, sir, Chairman Begich. We believe, both as it relates to the biological data necessary to support stock assessments, that we are making significant strides forward. Obviously, there are always additional challenges. There are a number of stocks that are on our radar to be the subject of additional attention, going forward. But, in the President's budget, both in Fiscal Year 2011 and Fiscal Year 2012, there were significant funds that were proposed to allow us to move forward substantially with respect to——

Senator BEGICH. Were those the amounts that you requested? Did OMB shave those back at all? That's really the question. I hate to put you on the spot, but, you know, welcome to my new opportunity, here.

Mr. SCHWAAB. So——

[Laughter.]

Senator BEGICH. And, by not answering you can—that answers my question.

Mr. SCHWAAB. So, honestly, Mr. Chairman, you know, I'm one year into this job, so, as I sit here, I'm not sure that I even could—if I was in a position to speak to that issue, that I could actually factually speak to that issue. I do know that there are significant increases that are contained. We see them as significant steps forward.

Senator BEGICH. OK. I'll leave you at that. I'll get you off the hook, there.

Let me ask you, with regards to science for the Northeast versus, you know, in, what I would—obviously, the Alaska region—do you think you—is there equity in the rate—in the amount of science being developed for the Northeast compared to what we have in Alaska? In other words, is there an additional effort that really needs to be done in the Northeast? But, give me your assessment. Either one of you, I guess, could answer the question.

Mr. SCHWAAB. So, Mr. Chairman, at your pleasure, I would defer that——

Senator BEGICH. Surely.

Mr. SCHWAAB.—to Dr. DeMaster.

Senator BEGICH. Dr. DeMaster.

Dr. DEMASTER. Yes——

Senator BEGICH. You have a unique role, because of your permanent position and your acting position, so——

Dr. DEMASTER. I do know the Alaska scene quite well. I'm——

Senator BEGICH. Oh, you do.

Dr. DEMASTER.—happy to talk about Alaska fishery issues quite a bit.

Senator BEGICH. Well, how does that compare to science data-gathering that you get in Alaska, for our state, compared to the Northeast? That's really the fundamental question.

Dr. DEMASTER. I'd say they're certainly comparable. I think the stock assessment scientists, in terms of their respect in the greater community, is certainly equal. The number of stock assessments in Alaska per year is a little greater. Partly that's because the process is designed to address 40 stocks a year. And it works. It works in a very public, transparent process, with significant participation by all the major players.

Senator BEGICH. You say that with a smile. I know what you mean.

Dr. DEMASTER. Well, I—and I don't know quite how to describe the situation in the Northeast, it's less—"friendly's" the wrong word—but there's more tension involved.

I think they're—the number of stocks assessed per year are about 20 per year. In the Northeast, I think the assessments are of high quality. I think the—they're trying to incorporate the most current information. For example, one of the recent groundfish as-

sessments, they held off on the implementation, because they knew there was a new assessment coming in. So, I think they've really tried to be flexible.

Certainly the number of NOAA vessels right now, if you look at—we have five vessels that are supporting surveys in the Gulf of Alaska and the Atlantic; we have two vessels that are supporting the west coast in Alaska, and one vessel in the Pacific.

So, I think it's clear we have put a priority on trying to improve stock assessments, the number of stock assessments in the Atlantic. We've certainly moved six new positions—stock-assessment positions to Southeast. That was a—that in—was, in particular, in response to trying to increase throughput. So, I think we have a good situation in Alaska, in terms of the quality of the assessments and number. I think we're trying to improve the number of assessments in Southeast. And I think we're in pretty good shape in Northeast, in terms of the quality.

Senator BEGICH. Very good. Let me end there.

Senator Boozman, you came in at the right time for the end of this first round. So, you are up now.

STATEMENT OF HON. JOHN BOOZMAN,
U.S. SENATOR FROM ARKANSAS

Senator BOOZMAN. Being a good member, like I say, I appreciate the testimony and things, and enjoyed looking at it. But, I'm quite content to move on.

Thank you.

Senator BEGICH. OK. We are actually going to go to one more round, if, Senator Snowe, you have additional questions.

Senator SNOWE. Just a couple of questions.

Dr. DeMaster, what would you suggest is an acceptable level of certainty, at which you would be comfortable making these regulatory decisions? That's really the crux of the issue for the fishing community, which depends on the most up-to-date data. Again, I'll cite the herring fishery as an example because it really is historical. This is one of the last cans of sardines made in America. For hundreds of years the United States of America has had a sardine industry. The last one was in Maine, in Prospect Harbor; and now we have none. It is closed, because there was a 40-percent reduction in the catch limits for herring. And herring wasn't even overfished. That's devastating. And that resulted in 130 jobs lost, and an American industry shattered. That's the problem.

What would you do? How would you suggest we could do better so that we can restore the integrity of the data and ultimately the confidence in the decisions that result from those data?

Dr. DEMASTER. Thank you, Senator Snowe. That's a difficult question. The agency works closely with all the councils. In the Northeast, in particular, the ACL is basically—it requires policy input, it requires how much risk you're willing to live with, in terms of overfishing. That risk isn't supposed to exceed 50 percent. The—in a perfect world, we might be around a—you know, a 25-percent risk of overfishing; but, that has costs, as you just mentioned. When you're up at a 50-percent—that is, you could—you're just as likely to overfish as not overfish. In my professional opinion, that's too close. That's not risk-averse enough.

On the other hand, how far down you move from 50 percent is, frankly, an issue the council and the regional managers decide. Once that decision is made, then the scientists can run the assessment models and the ABCs, and the actual TACs come out of it.

So, it obviously has to be no greater than 50 percent. How much less than 50 percent is a policy question that's addressed by the council and the regional managers.

Senator SNOWE. The socioeconomic effect of fishery management decisions is a key issue, Administrator Schwaab, that as you know I have constantly addressed this issue recently on this committee, and, as I said, early throughout my career in the Senate and on this committee. I championed National Standard 8; to ensure that we do examine the economic impact of these regulations on the community and the fishing industry as a whole. That assessment truly doesn't take place as an independent analysis.

What can we do to live up to the requirements of National Standard 8 and to give equivalency to that standard? Clearly if we lose our fishing communities, we lose them forever. What can you do or say to assure us that you're going to give that level of commitment, that equal level of commitment, to considering the socioeconomic impact of these regulations on the community?

Mr. SCHWAAB. Thank you, Senator Snowe. The councils and the agency do undertake significant economic analyses, in support of all of these fishery management decisions. As you indicated, that is largely under the auspices of National Standard 8. There has been, obviously, some concern and significant discussion, with respect to relative waiting.

So, National Standard 1, which is the requirement to prevent overfishing and to achieve optimum yield over time, does, in some cases, create tension between the requirement to end overfishing, the requirement to put in place standards to rebuild stocks to historic sustainable levels; and the potential short-term impacts of those activities, as they might be felt through individual fishermen and fishing communities. That is a tension that the councils do devote time to, that the councils obviously spend significant amount of time deliberating amongst various management choices. But, they do exist—the realm of choices available to them do exist within the context of those requirements to end overfishing and to rebuild stocks.

Senator SNOWE. Is there flexibility in the regulations to allow changes in management decisions for a mixed-stock fishery to allow for different decisions and adjust it accordingly?

Mr. SCHWAAB. So, there are flexibility in the regulations to choose strategies that are more sensitive——

Senator SNOWE. That's right.

Mr. SCHWAAB.—to some of——

Senator SNOWE. Yes.

Mr. SCHWAAB.—those economic——

Senator SNOWE. Exactly.

Mr. SCHWAAB.—considerations.

Senator SNOWE. That's——

Mr. SCHWAAB. But——

Senator SNOWE. For example, I had to pass legislation in order to secure the 44 percent increase in yellowtail flounder catch for

this coming season. Without that legislation, it would not have occurred through the agency. We couldn't get it done. That's the point. Is there not that kind of flexibility to make adjustments?

Mr. SCHWAAB. So, first of all, Senator, we, as you know, supported your efforts on the transboundary issue on Georges Bank yellowtail flounder. We appreciate what you did there. And we thought it important, in the case of, particularly, that transboundary stock, to treat Georges Bank yellowtail flounder management in the same way that Magnuson treats a number of other shared stocks, internationally.

But, to the basic point of your question, the flexibility, in our view and understanding of the law, ends at the point at which we have a reasonable expectation of ending overfishing and rebuilding stocks, in accordance with the time lines that are prescribed in the Act. And that's, I think, the—sort of, the crux of the challenge.

Senator SNOWE. Thank you.

Senator BEGICH. Thank you very much.

Senator Nelson.

STATEMENT OF HON. BILL NELSON,
U.S. SENATOR FROM FLORIDA

Senator NELSON. Mr. Chairman, thank you for calling this hearing.

And fishing, of course, is enormously important to our State—commercial, charter, recreational. It's a multi-multi-billion-dollar business in all three. And I'm grateful that you've included two Floridians—Mr. Bill Bird and Dr. Bill Hogarth—that are on the second panel. And I look forward to their testimony.

But, while the government witnesses are here, let me say to you all that I'm distressed at the fact that we don't have updated data in which to make our assessments. We've been told that the closures in certain fisheries are due to the Magnuson-Stevens reauthorization to end overfishing, which is a desirable goal. But, when Congress passed the reauthorization in 2006, it was on the assumption that the data was going to be complete, accurate, and up-to-date. And I think that your organization is interpreting the Act in a way that it was not intended. And so, I would ask you all to consider updated data collection.

And yet, we've had this in 2006; we had another bill, signed by President Bush, in 2007; and now, almost 40 months later, the program's still not operational. Then it took the *Deepwater Horizon* oil spill for us to get focused on the Gulf. And we went in there and we found that 35 percent of all the stocks that are under fishery management have never had a stock assessment. And then, in the south Atlantic, less than a third of all the stocks under fishery management have had a stock assessment.

Now, recently, the National Marine Fisheries Service and the regional councils have instituted these fishery closures, shutting down virtually all the access. And we've seen it with red snapper, black sea bass, and gag grouper. And now we may be facing restrictions on wahoo, cobia, and others.

And then we've seen how science can really help us, if we have the data. For example, last year, when there was the looming possibility that waters, from Brunswick, Georgia, in the north, all the

way south to Cape Canaveral, were going to be closed to all bottom fishing to protect one fish: the red snapper, it was based on outdated data. And after going through a lot of flailing about, then the updated stock assessment showed that the bottom closure wasn't necessary.

And so, I'm concerned that we're not following the intent of Congress. And so, I want to know, and my first question would be, How does the National Marine Fisheries Service prioritize which stocks we're going to assess?

Mr. SCHWAAB. Thank you, Senator Nelson. You covered a lot of ground there. Let me make a couple of quick points and then perhaps ask Dr. DeMaster to say a word or two about the prioritization process.

As it relates to the biological data needed to support good and timely stock assessments, we have been—both in Fiscal Year 2010 and again in the President's proposed budget in Fiscal Year 2012, also reflected in the 2011 proposed budget—increased stock assessment research funding. In Fiscal Year 2010, we dedicated over half of a $10 million—or approximately half of a $10 million increase to the Southeast, because of particular concerns there.

At the same time, I think part of your question was alluding to concerns with respect to implementation of the Marine Recreational Information Program that was prescribed in the 2007 reauthorization. We are moving to implement an entirely revamped Marine Recreational Information Program. We have dedicated additional resources to help make that a reality and to move that forward in several ways. Obviously, a big component of that was the establishment of—in 2010, of the National Angler Registry, but there are components associated with revising the way that dockside assessments are undertaken, looking, retrospectively, at the way some of those data have been modeled and characterized in the past and revamping, essentially, the whole data-crunching process. We are also looking, this year, at, for example, in the Fiscal Year 2012 budget, funds that would allow us to move to one-month waives, for the purposes of collecting recreational data on the East Coast and in the Gulf, which would be a significant step forward to allow timely actions in response to changing catch-and-effort patterns.

So, let me——

Senator NELSON. Well, wait just a minute.

Mr. SCHWAAB. Oh, I'm sorry.

Senator NELSON. The question was, How do you determine which stocks to assess? That's the question.

Mr. SCHWAAB. Thank you. So, the—I was going to, if it is acceptable to you, ask Dr. DeMaster, our Acting Chief Scientist, to address that question.

Senator NELSON. OK.

Mr. Chairman, now the—we've used 3 minutes of my remaining time, and I am now 2 minutes over the allocated time. I'm trying to get to a simple question and a simple answer.

Senator BEGICH. We'll allow a little bit more time. Dr. DeMaster, if you could try to answer that very succinctly.

Dr. DEMASTER. Thank you.

There are three vessels that are assigned to the Southeast from NOAA. Those vessels are used to do stock assessments. The actual stock assessments are basically—are based on an agreement between the SSC, the council, and the region—the southeast region. The additional funds that could be used, for example, to increase the throughput, in Southeast, has a problem, in terms of throughput for stock assessments. That comes from headquarters. Decision was made to increase the number of stock assessment scientists by six over the next, about, year and a half. So, that's both a headquarters decision and a regional decision.

Senator NELSON. So, is your answer—when we go and make assessments on the lack of data, is your answer that who I need to see is Dr. Lubchenco?

Dr. DEMASTER. I think——

Mr. SCHWAAB. I'm——

Dr. DEMASTER.—Mr. Schwaab should answer that.

Mr. SCHWAAB. I'm happy to, Senator Nelson, address those issues directly.

Senator NELSON. All right. Well, how are we going to start getting updated data so we don't make these blanket eliminations of folks going out and fishing—and yet, protecting the very fish that need to be protected? How are we going to do it if we don't have the scientific data?

Mr. SCHWAAB. So, Senator Nelson, there are obviously a number of steps that we are taking to try to improve both the catch-and-effort data as well as the number and pace of our stock assessments, both in the region and nationally.

We, to go back to your original question, do prioritize, based upon the relative importance of those stocks to fishermen and other interests in respective regions. Obviously, there are factors related to the pace at which those—the circumstances surrounding those stocks might change, as well, so there are biological factors that also come into play there. But, if there are specific stocks, or if you would like to talk specifically about, sort of, the ranking of stocks within the Gulf or the south Atlantic, I'm happy to assist you with that personally.

Senator NELSON. All right.

I'm way over time. May I just close out with this? Thank you, Mr. Chairman.

You all——

Senator BEGICH. It's only because it's my first meeting I'm giving you flexibility.

[Laughter.]

Senator BEGICH. Be prepared.

Senator NELSON. Did you all get additional data on red snapper, and that is why that has been changed? Just yes or no.

Mr. SCHWAAB. Yes.

Senator NELSON. OK.

Senator BEGICH. Perfect.

Senator NELSON. Given the fact——

[Laughter.]

Senator NELSON.—that that's the case, do you realize that there are a lot of other people that are suffering trauma because a lot of that other ban is based on the lack of data? That we wouldn't

have had to go through all of that, with regard to red snapper, if we'd have had the updated data?

Mr. SCHWAAB. I agree, sir.

Senator BEGICH. OK, leave it at that.

Let me say, we're ending the last—this round, here, and we're going to bring up the next panel—but, just a quick question, to follow up on Senator Nelson's.

Do you have a list of protocols that you utilize to determine, kind of, the prioritization of how you do assessments? You listed some of them just verbally. But, do you actually have a written protocol that says, "Here are the things we will determine to create a prioritization?" That's really, I think, the question Senator Nelson is trying to get to. How do you get to the bottom, here?

Mr. SCHWAAB. Yes, sir. We do use a sustainability index that identifies relative importance of stocks, what we know about stocks, and their relative status that factors in. As it relates to a specific written set of criteria articulating some of the things that I just mentioned——

Senator BEGICH. Right.

Mr. SCHWAAB.—honestly, I'm not certain. A lot of those decisions get made regionally. But, I'm happy to——

Senator BEGICH. Could you get that for the record?

Mr. SCHWAAB.—look into that and get back to you.

[The information referred to follows:]

NMFS rationale and protocols for conducting fish stock assessments are generally described in the Marine Fish Stock Assessment Improvement Plan published in 2001. Although the Stock Assessment Improvement Plan did not include explicit criteria for prioritization of stocks to be assessed, each NMFS' Region uses similar concepts in selecting stocks to be assessed for the first time or as an update of a previous assessment. In 2010, a prototype set of national criteria was developed and used in setting priorities for additional stocks to be assessed with the FY 2012 request. This prototype set includes:

1. Commercially and recreationally valuable stocks and associated fishery-limiting stocks with high scientific or management uncertainty influencing annual catch limits;

2. Intensity of fishing, including stocks that have an overfishing status, stocks that have fishing rates approaching levels that would lead to overfishing, or stocks with high or increasing fishing pressure that require additional attention;

3. Stock abundance including stocks that are overfished or on the brink of overfished, on a rebuilding plan, or have uncertain abundance trends;

4. Assessment frequency considerations such as stocks that have never been assessed, stocks that have an assessment that is more than 5 years old, or stocks with management plans that require more frequent updates than currently provided;

5. Stock importance in terms of commercial and recreational value, role in ecosystem, and as bycatch; and

6. Synergistic factors, including level of data already available and benefit to other stocks and future assessments.

Ultimately, the particular assessments that will be updated in any given year are determined through regional processes consistent with national priorities and in consultation with the Regional Fishery Management Councils and other partners as the execution year approaches.

Senator BEGICH. Great. I think that's the question.

And let me add some additional ones. I'll submit mine for the record, because I want to get to the next panel.

Senator BEGICH. But, I really appreciate both of you.

Senator Boozman, did you have anything, last, before this panel is dismissed?

Senator BOOZMAN. No. Thank you, Mr. Chair.

Senator BEGICH. Thank you.

Again, thank you both. You were on the hot seat a little bit, but I guarantee you a lot of the information you laid out helped us a little bit. And we'll have some more, I'm sure, for the record, we'll submit to you both.

Thank you very much.

Mr. SCHWAAB. Thank you.

Dr. DEMASTER. Thank you.

Senator BEGICH. Let's get prepared for the next panel.

We have four presenters. And we'll give a second for a quick changeover.

And, Mr. Schwaab, you can see Mr.—Senator Nelson's already on the path. So, there we go.

[Laughter.]

[Pause.]

Senator BEGICH. Thank you all very much for being here.

We—again, we have a distinguished panel of presenters. And what I'd like to do—I'm going to go in order as it was listed here.

Dr. William Hogarth, I'm going to have you first. Ms. Madsen, I'm going to have you second. Mr.—is it "Gicaloney"—"Giacaloney"?

Mr. GIACALONE. Yes.

Senator BEGICH. Is that close?

Mr. GIACALONE. That's perfect.

Senator BEGICH. Oh, very good. My wife will be happy.

[Laughter.]

Senator BEGICH. She's half Italian. So, I did it right.

And, Mr. Bird, we'll then have you last, if that's OK.

First person up, again, is Dr. William Hogarth, Interim Director of Florida Institute on Oceanography, University of Southern—South Florida. And last time we saw each other was when I was Mayor and you were doing the IWC in Anchorage. And you did a great job, and we thank you for that.

You're up. If you can keep your conversation—or your comments to 5 minutes or less. And then whatever you would like to submit for the record, we will do that.

STATEMENT OF WILLIAM C. HOGARTH, PH.D., DIRECTOR, FLORIDA INSTITUTE OF OCEANOGRAPHY, UNIVERSITY OF SOUTH FLORIDA

Dr. HOGARTH. Thank you, Chairman Begich and members of the Subcommittee. I thank you for the opportunity to testify on the implementation of the Magnuson-Stevens Fishery Conservation and Management Act.

My name is Bill Hogarth, and I am the current Director of the Florida Institute of Oceanography, which is—there are 20 institutions in Florida within—that's made up primarily of the 11 public universities. From 2000 to 2007, I was the Assistant Administrator for Fisheries and Director of the National Marine Fisheries Service. Many of the changes to the Magnuson Act that occurred during the reauthorization of 2007 occurred during my tenure as Director of the National Marine Fisheries Service.

Today, I would like to offer my perspectives on the issues that were important in the 2007 reauthorization, and the successes and challenges in implementation of its new requirements.

The 2007 reauthorization of the Magnuson Act included a number of key changes aimed at finally ending overfishing, increasing the accountability of the councils for using best available science, decreasing the IUU—illegal, unreported and unregulated—fishing, and for managing fisheries, consistent with an ecosystem view.

Many changes occurred to the basic law, in which many regions of the country, such as Alaska, were perceived as working well. Senator Stevens and many of the current members of the subcommittee were deeply involved in making sure the law lived up to the—its expectations to rebuild depleted stocks and manage, on a sustainable basis, for the fishers of the U.S.

For over 30 years, a number of the stocks were chronically overfished. These include some New England groundfish stocks, reef fishes in the Gulf of Mexico, South Atlantic, Caribbean, and highly migratory stocks in the Atlantic.

Despite a series of increasingly restrictive management plans, the councils were never able to eliminate overfishing for about 40 of these stocks. It's also during this time that we did a lot of work to look at the economics of not rebuilding the stocks, and it is very clear that we'd lose some $2 billion a year—$2 billion a year—by not rebuilding these stocks.

In my tenure as director of NMFS, I was concerned about—that the detailed regulations on where, when, what year, and how much fish to catch were limiting the ability of the fishermen to act as rational businesses. This is a huge business. I've heard, all morning, you talk about how much it brings in. It is a huge business, billions of dollars. But, investments in fishing vessels, processing jobs need to be based on a rational business planning environment. And many of the Nation's fisheries' allocations to individuals or sectors have allowed regulators to reduce the overall regulatory burden, as long as catches do not exceed allocation.

The 2007 authorization has helped to better define catch-share programs, and encouraged their use, within certain constraints. I support these programs, where appropriate; and they should be from bottom up, not top down; and they're not the salvation for all circumstances.

The 2007 reauthorization also emphasized the importance of improving the science, its purview and use by the councils. It mandated that advice by council scientific committees could not be exceeded, and called for more research on stock assessment. It also emphasized the importance of Cooperative Research Program, where NMFS scientists work in concert with fisheries to gather important data to use as help managing stocks.

Based on actions of the Fisheries Management Council, it is highly likely that, in 2010, we have functionally ended overfishing in federally-mandated domestic fishing. There are several qualifications to this statement. One, it does not necessarily include state-managed fisheries. Two, it does not include management by the Regional Fishery Management Organizations. And three, it does not mean that all stocks are rebuilt. This will take some time.

One of the most important requirements emphasized in the reauthorization of the Magnuson is a need for high quality science supporting the ACLs. We've heard this all morning, as I listened, the need for science. We must invest if we want to rebuild.

Finally, in my view, the Magnuson-Stevens Act does not need to be reopened; it ought to effectively address the various issues raised above.

Congress and the Administration need to recognize the enormity of the task they gave the agency in 2007. Further, additional resources for science and management activities are needed in order to make this system more timely, responsive to stock increases, and more credible in the eyes of the fishermen. We're all on the right path and—with the Magnuson-Stevens Act.

NMFS has within its control, in my opinion—it can use the National Standard guidelines to refine implementation of the Act to address issues such as mixed-species harvesting, rebuilding targets for overfished stocks, and other issues, and even look at landing what you catch.

Thank you, Mr. Chairman.

[The prepared statement of Dr. Hogarth follows:]

PREPARED STATEMENT OF WILLIAM C. HOGARTH, PH.D., DIRECTOR, FLORIDA INSTITUTE OF OCEANOGRAPHY, UNIVERSITY OF SOUTH FLORIDA

Senator Begich and members of the Subcommittee, thank you for inviting me to this hearing on how the implementation of certain aspects of the Act is impacting fisheries and the individuals, businesses and communities who depend upon them.

I am Bill Hogarth, Director of the Florida Institute of Oceanography (FIO) which is an Administrative Infrastructure Support Organization (AISO) created by the Florida Legislative and serves under the Board of Governors. FIO consists of 20 members including 11 State University System institutions, the Florida Department of Environmental Protection, Florida Wildlife Research Institute, Mote Marine Lab, University of Miami, Eckerd College, Smithsonian Institution, Florida Sea Grant, NOVA SE University and New College.

From 2000 to 2007, I was the Assistant Administrator for Fisheries and Director of the National Marine Fisheries Service. Many of the changes to the Magnuson Stevens Act that occurred in the reauthorization of 2007 occurred during my tenure as Director of the National Marine Fisheries. Today, I would like to offer my perspectives on the issues that were important in the 2007 reauthorization, and successes and challenges in implementation of the new requirements to date.

In my tenure as Director of NMFS, I was concerned that detailed regulations on where, when, what gear and how much fish to catch were limiting the ability of fishermen to act as rational businesses. Investments in fisheries vessels, processing and jobs need to be based on a rational business planning environment. In many of the Nation's fisheries, allocations to individuals or sectors have allowed regulators to reduce the overall regulatory burden as long as catches to not exceed allocations. The 2007 reauthorization helped to better define catch share programs and encouraged their use, within certain constraints. I continue to support these programs, where appropriate—and they are not necessarily appropriate in all circumstances. In my opinion, the continuing debate about New England groundfish management stems from the fact that we put into place restrictive annual catch limits intended to end overfishing at the same time incorporating a catch share program with its allocations to the various sectors. This is the first time that I recall that important conservation and economic objectives were addressed for such an important fishery simultaneously. Thus there is confusion regarding the purposes of the specific ACLs and the catch share system.

The 2007 reauthorization also emphasized the importance of improving the science, its peer review, and use by the councils. It mandated that advice by Council's Scientific and Statistical Committees could not be exceeded, and called for more research on stock assessments. It also emphasized the importance of cooperative research programs—where NMFS scientists work in concert with fishers to gather important data used to help manage the stocks. During my tenure working with Congress and the Administration, we were able to increase funding for science including

the Expand Stock Assessments budget line, and to build several acoustically-quiet fishery survey vessels. Incidentally, these new fishery survey vessels were crucial to the response to the *Deepwater Horizon* oil spill response because of their diverse capabilities and ability to monitor gas and oil seeping from the vicinity of the well head.

The discussions on the reauthorization of the Magnuson-Stevens Act were very intense and centered to a large extent on the annual catch limits to be set to stop overfishing, prevent overfishing of stocks, and the necessity of the rebuilding timeframe. In evaluating the impacts of not controlling overfishing and overfished stocks it was calculated that we could realize a $2 billion *increase* in revenue if we properly managed and rebuilt the stocks

The potential economic impact to the fishing families, businesses and communities created debate on the on balance of conservation and economics. Many options were considered with the final requirements that the Councils have 1 year to develop the plan, with an end to overfishing occurring as soon as possible not to exceed 2 years. It is my understanding that an end to overfishing has now been achieved for U.S. fish stocks that are federally-managed, but not for some state or International stocks.

Each Council must set ACLS such that overfishing does not occur. As uncertainty in stocks status is caused by many factors: Change in climate and ecosystem condition, type and amount of data, and year to year variation in assessments. This uncertainty can be accounted for by the Councils as they specify probability which in many cases would be at least 50 percent, if not higher. In fact, some U.S. fisheries lack complete or comprehensive collection programs needed to support stocks assessments. This along with some of the complexes such as reef fish where "weak stocks" that exist must be protected, have presented challenges which need to be addressed. In my opinion, these can be addressed by the Agency reviewing its guidelines for implementing ACLs to see if they can be redefined to help in easing some of the economic impact of preventing overfishing in data poor or weak stocks. I believe reopening Magnuson-Stevens at this point to consider this issue would be counterproductive, the act is working, overfishing has or soon will be ended and increased catches should be available. The Agency should examine every alternative including the requirement to land all fish caught and re-examination of the ACL guidelines as a first step.

As for catch-shares, individual fishing quotas, rights based, market based quotas or whatever term you wish to call this option, should remain a vital part of the tool box for addressing fishery management issues. While I was with the Agency we had implemented approximately 11 market-based programs. These programs not only resulted in increased safety for some fisheries such as the Alaskan crab fishery, but in almost all market based quotas, extended seasons allowed the fisherman to make the decision when to fish, taking advantage of weather, market, etc. There are many options for the Councils and each fishery to consider. The most important part is they must be built from bottom-up and not top-down. At a workshop I commissioned at the Heinz Center in 2002, the main issues were: (1) who gets in and (2) consolidation of permits. The "who" is because many do not have good catch records for various reasons, plus, there may not be provisions for crew members and concern for one group or individual buying the entire quotas. These are still issues today, but can be handled in the developing the plan amendments. The future is operate as a business—make your decision when and where to fish—realize better prices, reduce by catch, etc. and increase safety.

The ongoing confusion regarding the use of catch shares and how these programs are being applied is definitely creating an obstacle to helping the industry realize a better price, product and safety decisions. The most difficult situation appears to be in New England, where additional cuts to the annual catch limits for several of the stocks were required to be implemented for the 2010 season to meet the MSRA requirements. Instead of taking additional day-at-sea cuts, the Council opted for implemented the sector based allocation program, which was a voluntary program on the part of the Council. There continues to be confusion regarding the allocations under the catch share program based on the 11-year catch history of fishing along with the overall ACLs necessary to meet conservation requirements. I believe the Industry and Council should be able to work through this issue.

In summary, the 2007 reauthorization of the Magnuson-Stevens Act of 1976 included a number of key changes aimed at ending overfishing, increasing the accountability of the Councils for using best available science, decreasing IUU (illegal, unreported and unregulated) fishing, and managing fisheries consistent with an ecosystem view.

The requirement to end overfishing for some 40 stocks, where documented by previous stock assessments, required Fishery Management Councils (FMCs) to incor-

porate more stringent measures for New England ground fish, as well as a number of reef fish stocks.

Based on the actions of the FMCs, it appears that the U.S. has fundamentally ended overfishing in federally-managed domestic fisheries. This is an enormous achievement, and one that Congress and the Administration clearly intended in its 2007 reauthorization of MSRA. There are several qualifications to this accomplishment: (1) it does not necessarily include state-managed fisheries; (2) it does not include stocks managed by Regional Fishery Management Organizations; and (3) it does not mean that all stocks are rebuilt, this will take some time, but we are on the upswing.

One of the most important requirements emphasized in the reauthorization of the MSRA is the need for high quality science supporting the stocks assessment proper and ACLs. While the science used to support the status of stocks determination is generally robust, additional resources are required to make the science more timely, include more stocks, more fisheries independent surveys, and in some cases such as weak stocks and reef stocks complex, increase the precision of assessments. In particular, additional resources are needed in the Gulf of Mexico, South Atlantic, Caribbean, and in New England to increase the production of assessments supporting management. While there are 139 of the most important stocks in the country that are routinely assessed, the Fishery Management Councils have 522 stocks under management, and some of the stocks that are assessed are not done so annually. The requirement to set annual catch limits means that we need to be assessing stocks more frequently in some areas. NOAA needs to increase funding for high quality fishery independent surveys for as many harvested stocks as possible. This includes using its fleet of fishery survey vessels to its full potential.

At the University of South Florida-College of Marine Science we began a new course in Marine Resource Assessment in order to address some of the concerns I have heard about real time data and assessments. This course is being conducted with the aid of National Marine Fisheries Services. We have hired three new Faculty members; have five dedicated fellowships and a large amount of interest from students across the country. We believe this course which will utilize the oceanographic data, and instruments at the College to better understand fish behavior, etc. This should lead to move precise and timely stock assessments.

Improvements in the recreational fishing data were an extremely important requirement of MSRA. The requirements of recreational registrations were designed to strengthen state-by-state recreational fishery data collection programs. These catches are vital to an accurate data collection program to conduct valid stock assessments. The Agency needs to speed up the transition from the old MRFSS system to the new MRIP system which will not use random-digit telephone calls to coastal counties to assess recreational fishing efforts.

Finally, my honest opinion after much thought, is that the MSRA does not need to be "re-opened" in order to address the issues raised in my testimony. Congress and the Administration need to recognize the enormity of the task it gave NMFS in 2007 reauthorization of the Magnuson-Stevens Act. We in the U.S. are recognized as having excellent laws to management over fisheries; we must find the political strength and resolve to see it through. The fisherman, businesses, communities and American people will realize the benefits, it is working.

In my opinion, we need Congress to provide resources and support to carry out the science and management activities. Thus, the process will be more timely, responsive to stock increases, and more credible in the eye of the fishermen.

The U.S. can be a leader again in fisheries and not rely on importing over 80 percent of our seafood and over 90 percent of our shrimp from foreign countries that do not have as stringent conservation standards as the U.S. Rebuilt stocks, effective seafood safety and marketing programs, and a robust aquaculture program will realize over $2 billion in increased revenue for our coastal communities economy, increased jobs and increased fishing opportunities for our recreational fisherman. The United States has sent a clear signal to the rest of the world that we will achieve sustainable fisheries, which was our commitment to the World Summit on Sustainable Development (WSSD). Importantly, it helps in our international negotiations for stocks that the USA harvests under international agreements.

Senator BEGICH. Thank you very much, Dr. Hogarth.

Let me move now to Ms. Stephanie Madsen, Executive Director of the At-Sea Processors Association.

Again, welcome. And thanks for traveling the distance from Alaska.

STATEMENT OF STEPHANIE MADSEN, EXECUTIVE DIRECTOR, AT-SEA PROCESSORS ASSOCIATION

Ms. MADSEN. Well, thank you, Mr. Chairman and members of the Subcommittee, for the opportunity to testify on the implementation of the 2007 Magnuson-Stevens Act amendments.

I am testifying today on behalf of the At-Sea Processors Association. APA is a trade association representing companies that own and operate 19 trawl catcher/processor vessels. APA members participate principally in the Nation's largest fishery, the Alaska pollock fishery, which yields average annual landings of nearly 3 billion pounds.

Since enactment of the Magnuson-Stevens Act in 1977, I have been closely involved in fishery management process, including serving from 2001 to 2007 on the North Pacific Council. I chaired the Council for 4 of those 6 years.

My testimony today focuses on the requirement for fishery management plans to include annual catch limits, the requirement for accountability measures to ensure that catch limits are not exceeded, and catch shares, including APA's innovative Fish Harvesting Cooperative.

While the annual catch limit requirement is a new provision in statute, it essentially tracks the process, established over three decades ago by the North Pacific Council, to manage species under its jurisdiction.

In the Alaska region, NOAA fishery scientists prepare annual stock assessments for each of the target species. The stock assessment report is peer-reviewed in public sessions by the council's Groundfish Plan Team, which is composed of Federal and State fishery scientists and academics. The Plan Team recommends an acceptable biological catch limit and forwards the stock assessment to the council's Scientific and Statistical Committee, which also includes government scientists and academics. The SSC then makes its own ABC recommendation to the council. The council then develops a total allowable catch level, which is synonymous, Mr. Chairman, with annual catch limit, for each target groundfish fishery.

The North Pacific Council has never set a TAC above the ABC recommendation of its scientific panels, and there has never been overfishing of any groundfish stock.

While the annual ABC recommendations can be highly anticipated by the industry, there is a distinct lack of tension or friction to the process. NOAA Fisheries' Alaska science programs have been adequately funded through the years, providing critical survey research necessary for estimating stock abundance with a high degree of confidence. There is also a comprehensive data collection program that supports analysis of stock characteristics essential to understanding whether the population trend is likely headed up or down, allowing fishery managers to plan accordingly. Stakeholders appreciate the quality of the information collection process. They respect the analysis and buy into the process because of its transparency.

In this budget climate, both the agency and the industry are extremely concerned about maintaining current funding levels for fishery science to ensure high quality annual survey research. If

basic fishery science funding levels are reduced, catch levels will be sacrificed as more precautionary catch limits will be imposed to account for increased scientific uncertainty about fish stock trends and abundance.

We urge Congress to continue to invest in fishery science as a cornerstone to maintaining a healthy commercial fishing industry. We also urge Congress to continue to support a council process that is transparent, inclusive, and participatory.

My written testimony goes into some detail about various accountability measures, but I'll just highlight one element for the Subcommittee now. The centerpiece of accountability measures in the north—is the North Pacific Groundfish Observer Program. NOAA Fisheries' Alaska Science Center administers this program, which has built a comprehensive observer program over the last 20 years. The Alaska groundfish industry contributes approximately $13 million annually to help fund the placement of federally-trained and certified observers on vessels and at processing plants.

It was the experience of the APA catcher/processor companies that catch limits and accountability measures alone were not sufficient tools to provide for a stabile and prosperous fishing industry. During the 1990s, while catch limits maintained healthy Alaska pollock stocks, the industry suffered from chronic overcapacity and attendant economic instability resulting from the race for fish.

The Alaska pollock fishery achieved socioeconomic stability only when a catch-share-style program was adopted. The Alaska pollock catcher/processor fleet banded together in 1999 to form a fish harvesting cooperative. In that cooperative agreement, we allocate the pollock under private contract, and there are stiff penalties for violating any portion of that contract.

By making operational changes to maximize the value of allocated catch instead of racing, the pollock catcher/processors are producing almost 50 percent more food products per pound of fish harvested than they did operating without a catch-share-style program.

Mr. Chairman, our pollock conservation has measurable conservation benefits, as well. I'm running out of time, so my written comments will address that.

But, finally, Mr. Chairman, we're aware of recent efforts in Congress to bar funding for developing or approving new catch share plans on the East Coast or in the Gulf of Mexico. We hope that Congress will not support efforts to derail new catch share programs if that is the tool managers and stakeholders identify as the best management option.

That concludes my testimony, Mr. Chairman. Thank you again for the opportunity to appear today. And I am pleased to answer any questions.

[The prepared statement of Ms. Madsen follows:]

PREPARED STATEMENT OF STEPHANIE MADSEN, EXECUTIVE DIRECTOR, AT-SEA PROCESSORS ASSOCIATION

Thank you, Mr. Chairman and members of the Subcommittee, for the opportunity to testify on implementation of key provisions of the 2007 Magnuson-Stevens Fishery Conservation and Management Act (MSA) reauthorization.

I am testifying today on behalf of the At-sea Processors Association (APA). APA is a fishery trade association representing six companies that, among other commer-

cial fishing and fish processing interests, own and operate 19 trawl catcher/processor vessels eligible to participate in the Bering Sea groundfish fishery. APA member vessels participate principally in the Nation's largest fishery, the Alaska pollock fishery, which yields on average nearly 3 billion pounds annually in landings. Some APA vessels also harvest and process Bering Sea cod and flatfish and west coast Pacific whiting.

Since 1974, I have worked in support industries for commercial fisheries, transitioning into the commercial fishing industry along the way. Since passage of the MSA, I have been closely involved in the fishery management process. My involvement includes serving from 2001 to 2007 on the North Pacific Fishery Management Council, chairing the Council for 4 of those 6 years. I served on the Council's stakeholder Advisory Panel prior to being appointed to the Council. Currently, though not a member of the Council, I chair its Ecosystem Committee. Much of my testimony today is informed by my involvement over the past three decades as a commercial fishing stakeholder and as a Council member.

As requested by the Subcommittee, my testimony focuses on three issue areas addressed in the 2007 MSA reauthorization. I will speak to: (1) the requirement for fishery management plans to include Annual Catch Limits (ACLs) for fisheries; (2) the requirement for Accountability Measures in fishery management plans to ensure that ACLs are not exceeded; and (3) NOAA Fisheries' catch share policy and Limited Access Privilege Programs (LAPPs) as a subset within catch share options.

1. Annual Catch Limits (ACLs) for Alaska Pollock

The 2007 MSA reauthorization required that each regional fishery management council specify annual catch limits (ACLs) for each managed fishery. Each council is directed to set ACLs for fisheries at, or below, the sustainable fishing level recommended by that council's scientific and statistical committee (SSC). While this is a new provision in statute, it essentially tracks the process established over three decades ago by the North Pacific Fishery Management Council to manage the groundfish fisheries, and other species, under its jurisdiction in Federal waters off Alaska.

In the Alaska Region, NOAA Fisheries' scientists prepare annual stock assessment reports for each of the target groundfish species, including Alaska pollock, Pacific cod, Atka mackerel, and various flatfish species. The stock assessment report is peer reviewed in public sessions by the Council's groundfish Plan Team, which is composed of Federal and state fishery scientists and qualified academics. Based on its review of the stock assessment reports, the Plan Team recommends an acceptable biological catch (ABC) limit and forwards the stock assessment with any proposed revisions to the Council's SSC, which is similarly populated with Federal and state scientists and academics. The SSC, which like the Plan Team also meets in public and takes testimony from stakeholders, prepares an ABC recommendation for the Council's consideration as well. Most often there is a consensus view between these scientific panels on a precautionary ABC recommendation.

Informed by this comprehensive and transparent scientific review, the Council then develops total allowable catch (TAC) levels annually for each target groundfish fishery. Even prior to the 2007 MSA amendment, the North Pacific Council never set a TAC—which is synonymous with an Annual Catch Limit—above the ABC recommendation of its scientific panels. Not coincidentally, all of the Alaska groundfish stocks have been sustainably managed since the MSA was enacted in 1977. (Appendix #1 is a table showing the ABC and TAC levels for the Bering Sea pollock fishery from 1977 to the present.)

For groundfish, the North Pacific Council has had to make minimal changes to its current annual TAC setting process to be compliant with the MSA implementation regulations. The Bering Sea groundfish fishery management plan has been amended to identify ACLs for minor, non-target species that can be incidentally harvested in the commercial pollock, cod or flatfish fisheries, but that is more of an administrative change than a substantive one. (Appendix #2 is the ACL specifications sheet for Bering Sea groundfish fisheries for 2011.)

While the annual ABC recommendations for individual groundfish species can be highly anticipated by the commercial fishing industry, there is a distinct lack of tension or friction to the process. NOAA Fisheries' Alaska Fisheries Science Center has been adequately funded through the years, providing critical survey research necessary for estimating stock abundance with a high degree of confidence. There is also a comprehensive fishery dependent and fishery independent data collection program that supports analyses of stock characteristics that are essential to understanding whether the population trend is likely headed up or down and allows fishery managers to plan, accordingly. Commercial fishing stakeholders appreciate the

quality of the information collection process, respect the analysis, and buy into the process because of its transparency.

The situation with Alaska pollock, a fish stock with a fluctuating biomass, is useful in appreciating the industry's support for NOAA Fisheries' work and the Council process. In 2004, the ABC for the Bering Sea pollock fishery was 2.5 million metric tons—the highest ABC level ever recorded—and the TAC was set at almost 1.5 million metric tons. Favorable environmental conditions that boosted pollock stock abundance in the early 2000s, were much less favorable in the latter half of the decade. NOAA Fisheries' bottom trawl surveys and hydro-acoustic surveys showed declining fish populations. By 2010, the ABC and TAC were set at 813,000 metric tons. The commercial fishing industry accepted NOAA Fisheries' stock assessments equally when the projections were high as when they were low, and accepted the necessary concomitant reductions in catch levels when the stock trended downward.

Good science and responsible, adaptive management pays off. The Alaska pollock stock is once again trending upward. The 2011 ABC is 1.27 million metric tons, a more than 50 percent increase from a year ago. The 2011 TAC, or ACL, is set just under the ABC and is just about at the 35-year average for the fishery.

Industry confidence in the quality of the science fosters a collegial working relationship between NOAA Fisheries' regional scientists and managers and the commercial fisheries. In this budget climate, both the agency and the industry are extremely concerned about maintaining current funding levels for fisheries science to ensure high quality, annual survey research. If basic fisheries science funding levels are reduced, catch levels will be sacrificed as more precautionary catch limits will be imposed to account for increased scientific uncertainty about fish stock trends and abundance. The Alaska groundfish fishery, which accounts for roughly 40 percent of all U.S. seafood landings, is valued at more than $1.0 billion at the primary processing level. Tens of thousands of men and women earn family-wage jobs fishing and processing Alaska groundfish, and the economic benefits of this commercial enterprise flow directly throughout Alaska coastal communities and the Pacific Northwest.

We urge Congress to continue to invest in fisheries science as a cornerstone to maintaining a healthy commercial fishing industry. We also urge Congress to continue to support a council process that is transparent, inclusive, and participatory.

2. Accountability Measures (AMs) in the Alaska Pollock Fishery

The 2007 MSA reauthorization included an Accountability Measures (AM) requirement designed to complement the new ACL requirement. The AM requirement is provided to ensure that, once established, sustainable catch limits are not exceeded. Because annual catch limits have been in place for Alaska groundfish stocks since U.S. fisheries management authority was extended out to 200 miles in the late 1970s, accountability measures that ensure compliance with such catch limits have been developed and improved upon as well over time.

The centerpiece of accountability measures is the North Pacific Groundfish Observer Program implemented in 1990. NOAA Fisheries' Alaska Fisheries Science Center administers this program, which has grown from providing minimal levels of observer coverage for some fisheries to a comprehensive observer program. The Alaska groundfish industry contributes approximately $13 million annually to help fund the placement of federally trained and certified observers on vessels and at processing plants. NOAA Fisheries covers some administrative costs, but the industry bears most of the cost of this world-class monitoring program.

With regard to the Alaska pollock fishery, two federally-trained and certified fishery observers are stationed aboard all catcher/processor vessels, processing-only vessels, and at onshore processing plants during the fishing season. A single Federal fishery observer is assigned to every Bering Sea pollock catcher vessel while it is fishing. Among other responsibilities, fishery observers record all catch amounts broken out by species, conduct fishery dependent research, and record any marine mammal interactions.

The Federal fishery observer program is supplemented by other accountability measures developed through the council process to ensure that annual catch limits are not exceeded. At-sea processing and onshore processing facilities are required to use government-approved scales to weigh all catch, including non-target species. All fish caught, whether retained or discarded, are accounted for in this system so that the fishery's ecosystem impact is measured. Catch information is reported electronically to NOAA Fisheries by the vessel operator and by the fishery observer, providing real-time information to fishery managers. The fishery closes when the target catch limit is reached. For some Alaska groundfish fisheries, the fishery closes if certain limits on non-target species are reached even if the quota for the target fishery has not been achieved.

The Council and NOAA Fisheries also develop regulations stipulating when and where fishing occurs, regulations that include accountability measures to ensure compliance with time and area closures. For example, every pollock fishing and fish processing vessel is equipped with a Vessel Monitoring System (VMS) unit that transmits the vessel's location to NOAA Fisheries at random intervals several times per hour.

The accountability measures identified above, which are supported by industry funds in some cases, are viable because science-based catch limits on fish stocks (and an innovative catch shares program that I'll discuss below) lead to profitable fisheries. The fishing industry is better positioned to take on a greater financial share of stewardship responsibilities—such as contributing directly to the multi-million dollar observer program—when businesses are stable. That is what you see in the Alaska groundfish fishery in general and, specifically, with the Alaska pollock fishery.

3. Catch Shares—Fish Harvesting Co-ops and Limited Access Privilege Programs (LAPPs)

It was the experience of APA catcher/processor companies that ACLs and AMs alone were not sufficient tools to provide for a stable and prosperous fishing industry. During the 1990s, while ACLs and AMs maintained healthy Alaska pollock stocks, the Alaska pollock industry suffered from chronic overcapacity and the attendant economic instability resulting from a race to catch the available quota. The Alaska pollock fishery achieved socio-economic stability only when a catch share-style program was adopted, rationalizing the harvesting and processing of the resource.

The Alaska pollock catcher/processor fleet banded together in 1999 to form a fish harvesting cooperative, the Pollock Conservation Cooperative (PCC). PCC members allocate among themselves under private contract their sector's allocation of Bering Sea pollock. By apportioning the allowable harvest among eligible fishery participants (as determined through Federal law and regulation), vessel operators need only utilize as much fishing and harvesting capacity as needed to catch the quota and to do so at a pace that optimizes performance. By making operational changes to maximize the value of allocated catch instead of racing to catch as much of the sector quota as possible, pollock catcher/processor vessel operators are producing almost 50 percent more food products per pound of fish harvested than in the last year of operations under the race for fish format.

Our Alaska pollock fish harvesting cooperative has measurable conservation benefits as well. Cooperative members share catch information on a real-time basis to inform fishing vessel captains about bycatch "hotspots" to avoid. In fact, the cooperative members have entered into a private contractual agreement that closes areas to fishing if incidental catch levels of certain non-target species of concern are high. The government simply cannot adapt that quickly to impose regulatory closures. The cooperative's area closure agreement supplements existing Federal bycatch reduction rules and directly improves fleet performance. The contract imposes substantial monetary penalties for any member violating the agreement by ignoring area closures imposed under the cooperative fishing agreement.

The APA catcher/processor fish harvesting cooperative is a type of catch share program, though it is distinct from a LAPP. A LAPP is defined in section 2 of the MSA as a privilege "to harvest a quantity of fish . . . representing a portion of the total allowable catch of the fishery." The catcher/processor sector is assigned a portion of the overall Bering Sea pollock quota, but the individual allocation is determined through a private contract, not through law or regulation. Nonetheless, APA members' experience is that catch share-style programs, whether fish harvesting cooperatives or LAPPs or another variation on the theme, provide measurable conservation benefits and promote stable, family-wage jobs for commercial fishermen and fish processors.

We are aware of recent efforts in Congress to bar funding for developing or approving new LAPPs on the east coast or in the Gulf of Mexico. While that might leave the door open for other catch share-style programs, such as fish harvesting cooperatives, we hope that Congress will not support efforts to derail new LAPPs. We need to keep moving fisheries management forward.

Catch share-style programs are commonplace in the Federal fisheries off Alaska, and they are working. All of the major federally managed fisheries that occur in the waters off Alaska are benefiting from catch share programs. The small boat halibut and sablefish fishery has had a successful Individual Transferable Quota (ITQ) program for nearly 20 years. The Alaska pollock cooperatives have been in effect for a dozen years, and they are an unqualified success. The crab fisheries and the non-pollock groundfish fisheries have converted more recently to ITQ and cooperative

management schemes, respectively, and both have strong industry support. In those fisheries, catch share management is resolving overcapitalization problems, fostering a safer fishing environment, and maximizing utilization of fishery resources. Congress should continue to provide commercial fishing interests around the country with the same opportunities to improve their fisheries as those of us have on the west coast and in Alaska.

That concludes my testimony, Mr. Chairman. Thank you again for the opportunity to appear before the Subcommittee today, and I am pleased to answer any questions.

Appendix #1—Science-based ACLs for Bering Sea Pollock from 1977 to 2011—in metric tons

Source: Bering Sea Pollock Stock Assessment and Fishery Evaluation Report, December 2010

Year	ABC	TAC	Catch
1977	950,000	950,000	978,370
1978	950,000	950,000	979,431
1979	1,100,000	950,000	935,714
1980	1,300,000	1,000,000	958,280
1981	1,300,000	1,000,000	973,502
1982	1,300,000	1,000,000	955,964
1983	1,300,000	1,000,000	981,450
1984	1,300,000	1,200,000	1,092,055
1985	1,300,000	1,200,000	1,139,676
1986	1,300,000	1,200,000	1,141,993
1987	1,300,000	1,200,000	859,416
1988	1,500,000	1,300,000	1,228,721
1989	1,340,000	1,340,000	1,229,600
1990	1,450,000	1,280,000	1,455,193
1991	1,676,000	1,300,000	1,195,646
1992	1,490,000	1,300,000	1,390,331
1993	1,340,000	1,300,000	1,326,601
1994	1,330,000	1,330,000	1,329,350
1995	1,250,000	1,250,000	1,264,245
1996	1,190,000	1,190,000	1,192,778
1997	1,130,000	1,130,000	1,124,430
1998	1,110,000	1,110,000	1,101,165
1999	992,000	992,000	989,816
2000	1,139,000	1,139,000	1,132,707
2001	1,842,000	1,400,000	1,387,194
2002	2,110,000	1,485,000	1,480,195
2003	2,330,000	1,491,760	1,490,899
2004	2,560,000	1,492,000	1,480,543
2005	1,960,000	1,478,500	1,483,286
2006	1,930,000	1,485,000	1,486,435
2007	1,394,000	1,394,000	1,354,097
2008	1,000,000	1,000,000	990,566
2009	815,000	815,000	810,731
2010	813,000	813,000	813,000
2011	1,270,000	1,252,000	—
Avg.	ABC 1,382,000	TAC 1,192,260	Catch 1,168,547

Appendix #2—ACLs for Bering Sea Groundfish Fishery, 2011

NPFMC recommended TACs for 2011–2012 BSAI Groundfish; SSC recommended OFLs and ABCs

Species	Area	2010		2011			2012		
		TAC	Catch	OFL	ABC	TAC	OFL	ABC	TAC
Pollock	EBS	813,000	809,238	2,450,000	1,270,000	1,252,000	3,170,000	1,600,000	1,253,658
	AI	19,000	1,266	44,500	36,700	19,000	50,400	41,600	19,000
	Bogoslof	50	131	22,000	156	150	22,000	156	150
Pacific cod	BSAI	168,780	159,012	272,000	235,000	227,950	329,000	281,000	229,608
Sablefish	BS	2,790	721	3,360	2,850	2,850	3,080	2,610	2,610
	AI	2,070	1,049	2,250	1,900	1,900	2,060	1,740	1,740
Yellowfin sole	BSAI	219,000	114,600	262,000	239,000	196,000	266,000	242,000	197,660
Greenland turbot	Total	6,120	3,589	7,220	6,140	5,050	6,760	5,750	4,950
	BS	4,220	1,706	n/a	4,590	3,500	n/a	4,300	3,500
	AI	1,900	1,883	n/a	1,550	1,550	n/a	1,450	1,450
Arrowtooth flounder	BSAI	75,000	38,098	186,000	153,000	25,900	191,000	157,000	25,900

Appendix #2—ACLs for Bering Sea Groundfish Fishery, 2011—Continued
NPFMC recommended TACs for 2011–2012 BSAI Groundfish; SSC recommended OFLs and ABCs

Species	Area	2010		2011			2012		
		TAC	Catch	OFL	ABC	TAC	OFL	ABC	TAC
Kamchatka flounder	BSAI	n/a	n/a	23,600	17,700	17,700	23,600	17,700	17,700
Northern rock sole	BSAI	90,000	53,111	248,000	224,000	85,000	243,000	219,000	85,000
Flathead sole	BSAI	60,000	19,863	83,300	69,300	41,548	82,100	68,300	41,548
Alaska plaice	BSAI	50,000	15,771	79,100	65,100	16,000	83,800	69,100	16,000
Other flatfish	BSAI	17,300	2,179	19,500	14,500	3,000	19,500	14,500	3,000
Pacific Ocean perch	BSAI	18,860	16,567	36,300	24,700	24,700	34,300	24,700	24,700
	BS	3,830	2,267	n/a	5,710	5,710	n/a	5,710	5,710
	EAI	4,220	4,033	n/a	5,660	5,660	n/a	5,660	5,660
	CAI	4,270	4,033	n/a	4,960	4,960	n/a	4,960	4,960
	WAI	6,540	6,234	n/a	8,370	8,370	n/a	8,370	8,370
Northern rockfish	BSAI	7,240	4,039	10,600	8,670	4,000	10,400	8,330	4,000
Blackspotted/ Rougheye Rockfish	BSAI	547	232	549	454	454	563	465	465
	EBS/ EAI	n/a	n/a	n/a	234	234	n/a	240	240
	CAI/ WAI	n/a	n/a	n/a	220	220	n/a	225	225
Shortraker rockfish	BSAI	387	252	524	393	393	524	393	393
Other rockfish	BSAI	1,040	676	1,700	1,280	1,000	1,700	1,280	1,000
	BS	485	179	n/a	710	500	n/a	710	500
	AI	555	497	n/a	570	500	n/a	570	500
Atka mackerel	Total	74,000	68,643	101,000	85,300	53,080	92,200	77,900	48,593
	EAI/BS	23,800	23,599	n/a	40,300	40,300	n/a	36,800	36,800
	CAI	29,600	26,387	n/a	24,000	11,280	n/a	21,900	10,293
	WAI	20,600	18,657	n/a	21,000	1,500	n/a	19,200	1,500
Squid	BSAI	1,970	402	2,620	1,970	425	2,620	1,970	425
Other species	BSAI	50,000	16,614	n/a	n/a	n/a	n/a	n/a	n/a
Skate	BSAI	n/a	16,419	37,800	31,500	16,500	37,200	31,000	16,500
Shark	BSAI	n/a	47	1,360	1,020	50	1,360	1,020	50
Octopus	BSAI	n/a	149	528	396	150	528	396	150
Sculpin	BSAI	n/a	5,168	58,300	43,700	5,200	58,300	43,700	5,200
Total	BSAI	1,677,154	1,347,836	3,954,111	2,534,729	2,000,000	4,731,995	2,911,610	2,000,000

Senator BEGICH. Thank you very much.

Our next person is Mr. Vito Giacalone, the Policy Director of the Northeast Seafood Coalition.

STATEMENT OF VITO GIACALONE, POLICY DIRECTOR, NORTHEAST SEAFOOD COALITION

Mr. GIACALONE. Mr. Chairman, member of the Subcommittee, thank you for this opportunity to share my thoughts on the implementation of the Magnuson-Stevens Reauthorization Act, which I'll refer to as the MSRA.

As an active fisherman and the policy director for the Northeast Seafood Coalition, I have been deeply involved in the process to implement key provisions of the MSRA as they relate to the Northeast Multispecies Fishery.

Through Amendment 16 to the Groundfish Plan, this fishery has made a profound transition from an effort-controlled management

system to a catch-based system of harvesting cooperatives, called sectors. The Northeast Seafood Coalition is sponsor of 12 of the 17 sectors in operation, with over 300 active vessels as members operating in ports from Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York. In a number of ways, the Council's decisions to broadly expand the application of sector management fisherywide was a consequence of key changes present in the MSRA.

Amendment 16 was conducted under heavy pressure to meet statutory deadlines, implemented in the MSRA, which caused the Agency and the Council to proceed in a manner that was most expedient. Embedded in that action was a relatively nontransparent and complex discussion of sector allocations, which effectively resulted in an ITQ-type of system. It seems very conflicting that, in the process of meeting the MSRA timeliness for annual catch limits and accountability measures, we effectively trampled over the LAPP provisions in the MSRA, which clearly aim to minimize socioeconomic disruption to the fishery and dependent communities.

I want to be clear, however, that I agree with the Agency's final legal determination that the sectors ultimately developed under Amendment 16 are not LAPPs, because they were not developed under the LAPP provisions of the Act. More importantly, I strongly concur with the Agency's published interpretation that sectors and vessels are not issued a permanent allocation.

We are extremely concerned, however, that the Agency's message is not being heard, has not been made strong enough, or that the Agency is wrongly backing off. If and when the Northeast Council or the Agency take any future action to formally establish an IFQ or any other form of LAPP program for the groundfish, such program and associated allocations must meet all Section 303(a) and other applicable MSRA requirements. Anything less would perpetuate the inherent flaws we have experienced with the current system, as well as the circumvention of what was, in our strong opinion, plain congressional intent for allocation systems, such as groundfish sectors, to be designed according to the MSRA rules and protections for LAPPs, including an IFQ referendum. This would be a very helpful message for Senators interested in improving current New England situation to deliver to the Agency and the Council.

The final issue, regarding lost yields due to arbitrary rebuilding timeliness, is far more than I can explain in a very brief statement. And so, I hope you and the Committee staff will find my written testimony useful.

While many people have expressed many different ideas about the need for rebuilding flexibility, our consistent view has been the need to simply eliminate any arbitrary time requirements for rebuilding, and replace it with a rebuilding strategy founded on natural population dynamics. We don't need flexibility built into arbitrary rebuilding timeframes. We need to get rid of them.

Those who understand the realities associated with arbitrary rebuilding targets and timeliness, especially in a mixed-stock fishery that is part of a complex ecosystem, appreciate the reality that we have subjected our U.S. fisheries to a fool's errand. The costs are simply too great to continue to pursue an effort to control the un-

controllable, to know the unknowable, to attain the unattainable. The costs of this futile policy are huge losses of yields, jobs, and revenues, which are contrary to optimum-yield mandates of the Act. This is an inherent conundrum, presented by National Standard 1, for multispecies fishery and a complex ecosystem.

The United States fishermen are doing their part by ending overfishing and fishing at sustainable levels. It is time to amend U.S. law to focus on controlling what we can, and stop pretending what we cannot control, which is the entire ecosystem and the productivity of wild fish stocks.

Finally, to that subject, I want to express our sincere thanks to Senator Snowe and Senator Kerry and your extraordinary committee staff for making the U.S./Canada legislation a reality after 5 long years of intense efforts. I assure you these efforts will pay off, as they have already begun to do so with the Georges Bank yellowtail flounder stock. The bilateral agreement between U.S. and Canada will set the example of how we can successfully rebuild fish stocks without arbitrary rebuilding timeframes while maintaining a viable commercial fishery.

I'd be pleased to answer any questions.

[The prepared statement of Mr. Giacalone follows:]

PREPARED STATEMENT OF VITO GIACALONE, GLOUCESTER FISHERMAN AND POLICY DIRECTOR, NORTHEAST SEAFOOD COALITION

Mr. Chairman, distinguished members of the Subcommittee, thank you for this opportunity to testify before your Subcommittee and contribute to your oversight of the implementation of the very important Magnuson-Stevens Reauthorization Act (MSRA).

As an active Fisherman and the Policy Director for the Northeast Seafood Coalition, I have been deeply involved in the process to implement key provisions of the MSRA as they relate to the Northeast Multispecies fishery, better known as the New England groundfish fishery. Through Amendment 16 to the NE Multispecies Fishery Management Plan (FMP), this fishery has made a profound transition from an effort-based management system using Days at Sea (DAS) and vessel capacity as the allocation currency, to a catch-based output control system of voluntary fishery cooperatives called "sectors" that now use the "catch history" of a permit as the allocation currency.

The Northeast Seafood Coalition is the sponsor of 12 of the 17 sectors now operating under this Amendment including one serving as a private permit bank of which I serve as the Director. Over 300 active trawl, gillnet and hook gear vessels are members of the Northeast Seafood Coalition-sponsored sectors operating in ports from Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut and New York.

While Northeast Seafood Coalition is now both deeply-invested in and committed to making the existing sector system work, sector-based management was not the preferred choice of the Northeast Seafood Coalition, nor were a number of key aspects of the current sector system. Nevertheless, because it was clear the Council was firmly committed to adopting the sector approach notwithstanding our input to the contrary, we felt a strong obligation to our members to fully engage in the sector system in order to protect their best interests as best we could.

As I will explain, in a number of ways the Council's decisions to broadly expand the application of sector management fishery-wide, as well as the ensuing details of the sector system structure they developed, were both consequences of the key changes made to the Magnuson-Stevens Act (MSA) in the MSRA.

While most of my comments are critical, please understand that we fully recognize and greatly appreciate the efforts of this committee and others in Congress to continually improve the MSA such as through the MSRA. It is natural for me to point out the problems and concerns with a hopeful eye toward another opportunity to make further improvements to this landmark statute.

Having said that, certainly not all the problems we see in groundfish management are due to the policies or legislative language in these statutes. On the contrary,

it has been our observation that the Agency frequently makes excessively narrow or incorrect interpretations of your legislation, ignoring useful opportunities to apply flexibility where it exists throughout the MSA that might have avoided unnecessary problems. This can be very frustrating for all of us. We often wish the agency's attorneys would adopt a more common sense approach to interpreting Congressional intent. Perhaps that is a message this committee can convey to the agency.

Arbitrary Implementation Deadlines

The MSRA set forth two key implementation deadlines that had important consequences for New England groundfish management; the requirement to end overfishing immediately, and the requirement for Annual Catch Limits (ACLs) and Accountability Measures (AMs) to be in place for fishing year 2010 for stocks subject to overfishing.

Of course, those deadlines are well behind us now, but I think it is important to use our experience as a case in point of how arbitrary statutory deadlines of any kind that lack sufficient flexibility and/or proper agency interpretation can generate unintended or at least unanticipated consequences that are rarely positive. My testimony may also help explain the reasons for the strong and loud voices you continue to hear from New England regarding the sector system.

Amendment 16 began as a confluence of statutory and Council objectives to achieve in a fair and equitable manner an historic transition from effort-based management to catch-based management while simultaneously ending overfishing immediately, establishing annual catch limits, and imposing strict accountability measures to achieve those limits—all while causing a minimum of disruption to the fishery and communities. Adding to that, our fishery is a complex group of disparate multispecies fisheries involving several gear-types and 19 stocks all under one FMP.

It is no surprise that such an overly ambitious agenda simply could not be achieved according to the statutory deadlines without making critical sacrifices to the quality of the outcome.

It is impossible to know what might have been the result under different, more favorable circumstances, but in my personal view, the New England Council's and the Agency's rush to achieve these overwhelmingly complex objectives according to the MSRA-mandated schedule had—or substantially contributed to—the following adverse consequences:

1. Very early on, the Council hastily abandoned any serious analysis or consideration of potentially more favorable alternatives (*e.g.,* the points system) to the sector system. Instead, the design and operation of two existing sectors originally adopted years prior as a very limited "pilot program" for the small, directed cod fishery on Cape Cod became the sole focus. Essentially by default, a sector system quickly became the defacto Accountability Measure using the existing Cape Cod "non-LAPP" sectors as the template.

2. There was insufficient time for the Council and the fishing community to adequately analyze, understand or consider the implications of the various allocation criteria alternatives. This resulted in the expedient adoption of the most simplistic alternative (catch history). Because the Days at Sea system produced a series of ever increasing cuts in Days at Sea allocations, traditionally single-permit fishermen were forced to purchase additional permits for a completely different purpose (increasing their DAS) than what was used to assign value to those permits under the Amendment 16 sectors allocation system. Consequently, as the currency on which all non-speculative investment in the fishery had been based (DAS/Capacity) was abandoned, substantial investments in the DAS currency were stranded. This created instant winners and losers that, for most fishermen, was a matter of pure chance and/or a product of regional and inshore/offshore disparities in fishery regulations affecting catch history.

3. Under pressure to meet the statutory deadlines, and for expediency in dispensing with a protracted debate, the Council adopted disparate allocation baseline periods for different groups within the overall groundfish fishery. After completing a difficult process to resolve the baseline period for the core commercial fisheries, the recreational fishery was given a separate, more favorable baseline as were the two previously established Cape Cod sectors. These differences had very significant implications for the resulting allocations to the three groups. The vast majority of commercial permit holders in our fishery have raised very serious concerns that the Council's action to treat each of these three groups differently was not fair and equitable. This action has raised many ongoing concerns over its consistency with a number of MSA provisions including National Standard 4. These concerns are currently under review in Federal court.

4. The Council's adoption of the final sector design and complex operational details took place well in advance of the 2009 GARM III stock assessment and subsequent ACL determinations—before the biological objectives of the sector system were known. Lacking information on the status of many key stocks, the Council knew it had no idea what the actual consequences of the sector system would be on the functionality of sectors and the sector trading system, but was forced to prematurely set an Accountability Measure in stone in order to meet the MSRA deadline.

5. Perhaps the most damaging result of attempting to meet the timelines set forth in the MSRA is the absence of legitimate Amendment 16 alternatives to an ITQ-type system such as the current Sector allocations scheme operating today. Creative alternatives could not be proposed or developed adequately absent updated biological objectives being made available in time for the proper process to unfold. (the extra year granted through interim rule was used exclusively for the purpose of ironing out the complexities of the sector policy and administration and to allow the industry and NOAA to prepare the infrastructures necessary to handle the new system. The extra time was not used to create sensible alternatives.

6. At least partly for the purposes of expediency, a deliberate decision was made by the Council to develop the sector allocation and management system outside of the MSRA rules governing Limited Access Privilege Programs (LAPPs) now set forth in section 303A of the Magnuson-Stevens Act after receiving an initial legal opinion from the Agency confirming that the existing Cape Cod sectors were not LAPPs as defined under the MSRA. Thus, none of the rules and protections envisioned by Congress for LAPP programs apply to the Amendment 16 sectors.

Sectors

With that last point in mind, I want to be clear, however, that the Northeast Seafood Coalition has strongly concurred with the agency's final legal determination that the Sectors ultimately developed under Amendment 16 are not LAPPs. More importantly, the Northeast Seafood Coalition also strongly concurs with the Agency's published interpretation that sectors and vessels are NOT issued a permanent allocation.

This latter determination is absolutely crucial to the current and future investment environment with profound implications for the future structure of the fishery and communities. It also confirms very importantly that if and when the NE Council and/or agency take any future action to formally establish an IFQ or any other form of LAPP program for groundfish, such program and associated allocations must meet all section 303A and other applicable MSA requirements.

We are extremely concerned, however, that the Agency's message is either not being heard, has not been made strong enough, or that the agency is wrongly backing off.

Consistent with the Agency's correct interpretation, it is not possible to simply morph the current Amendment 16 "non-LAPPs" and the associated non-permanent sector allocations into a section 303A-consistent LAPP allocation system through a Framework or other abbreviated process. A new, legitimate LAPP allocation system must be fully developed from the ground up with all elements on the table, including especially the allocation criteria and issues related to consolidation, through a deliberate, comprehensive Plan Amendment process to conform the new allocation system to Section 303A requirements.

Anything less than this would likely perpetuate both the inherent flaws we have experienced with the current system as well as the continued circumvention of what was, in our strong opinion, plain Congressional intent for allocation systems such as the Amendment 16 sectors to be designed according to the MSRA rules and protections for LAPPs including a referendum for an Individual Transferrable Quota (ITQ). This would be a very helpful message for Senators interested in improving current New England groundfish management to deliver to the Agency and Council.

With that in mind, let me further clarify that the current sector system is effectively an ITQ system wearing a "non-LAPP sector" costume. Amendment 16 to the Northeast Multi-Species fishery management plan established an initial allocation for each and every limited access permit. Individually, each permit received a Potential Sector Contribution (PSC) which is represented by percent quota shares based upon historical performance for each stock allocated through the amendment. The PSC values are what each fisherman brings to the sector.

Naturally, once a fisherman receives that information from the Agency, he/she fully expects to take out what they brought into a sector. The proof that this is the reality is that all 17 sectors have sector/member contracts and operations plans that

incorporate a "what you brought in is what you can take out" redistribution method within the sector. Sector members are allowed to trade their individual allocations freely between members of their own sector. In addition, Amendment 16 provides for inter-sector trading; a system which has effectively operated as an ITQ given that members of different sectors regularly make private business agreements to trade fish and then instruct their respective Sector Managers to facilitate the transactions through the inter-sector trading mechanisms.

That said, I must point out that the sector scheme has built a form of protection to the smaller operators in the form of Right of First Refusal for permit sales and quota leasing. Each sector has a hired professional Sector Manager that assists the sector members in the burdensome reporting requirements as well as acting as a communication and trading facilitator. The low ACLs coupled with the straight catch history method of allocation produced a very narrow distribution of quota and without a referendum. I believe that the requirement that vessels be members of a sector, and the manner in which the industry formed the sectors, has created a layer of protection to fishing communities that many do not yet understand. But, the fact remains that the current Amendment 16 sector scheme is effectively operating as an ITQ system.

Finally, while I have attributed a lot of the problems we've experienced with the Amendment 16 sector development process to the statutory deadlines, I feel I owe you my honest assessment that many of these problems relate to the reality that Council members have the extraordinary power to create winners and losers in the initial allocation process of any catch share/LAPP program. Notwithstanding statutory rules governing recusal and conflict of interest, I believe Council members presented with a choice of plausible allocation alternatives will naturally gravitate to what is best for their own business interests. On a personal level, I am infinitely grateful to those individuals who have invested countless days, months and even years of their lives serving in the all too often thankless roles as Council members. As an organization, the NSC supports the Council process and strenuously endorses substantial industry representation on the council. The statements I am making here are not intended to discredit anyone or to insinuate that any improprieties or unethical behavior took place. I am merely offering my sincere and honest observation having lived this up-close and personally. Given similar circumstances, I believe there are few human beings that are capable of self-inflicting wounds when the alternative is to achieve instant wealth through a favorable initial allocation scheme. The stakes are simply too high which makes it almost unfair to Council members to have to make ultimate allocation decisions when the results are as financially profound as they can be in the initial allocation of a valuable resource like New England groundfish.

The perception in New England, shared by a great many, is that the allocation choices made by the New England Council were a product of an exclusive and very closely coordinated working relationship among Council members from the groundfish fishery, the recreational fishery, the pro-catch share environmental community, and perhaps the agency itself. This created a few big winners among those Council members and their sectors, and many, many losers of those fishermen not privileged to be inside that inner circle. This is, unequivocally, the perception.

Surely it must have been the fear and concern of precisely this type of result that caused members of the New England delegation to provide for a referendum requiring two-thirds approval before an IFQ allocation scheme could be implemented. Similarly the MSRA LAPP provisions and associated requirements must be placed front and center if an action involves allocation to any group or persons that represents a quantifiable portion of any stock or stocks within a fishery. In New England, we effectively received an IFQ/ITQ-type allocation scheme and a LAPP-type management regime without either a referendum or full consideration as a LAPP under the MSRA.

Had NOAA determined Amendment 16 sector allocations to be an IFQ subject to a referendum the Council would have avoided the level of culpability now perceived to be attributable to them.

Having identified some of the pitfalls we experienced in trying to accomplish too much with groundfish management within the MSRA deadlines for ending overfishing and establishing ACLs and AMs, there are certainly a number of positive aspects of a properly designed and implemented sector management scheme that we can also learn from.

By definition, the input-control DAS management system deliberately imposed inefficiencies on the fisheries in order to control catch (fishing mortality). The transition to sectors relieved fishermen of a number of those inefficiencies including seasonal/rolling closures and trip/possession limits and the associated regulatory discards (waste), among several others.

Certainly, the transition from input-control effort management to output-control sectors also made it possible to avoid the consequences of deep Days at Sea cuts that were inevitable absent a fully supported effort to radically modify the effort control system. Had we attempted to use the Days at Sea system that was in place as the tool to meet the new mandates of the MSRA, the results would have been catastrophic.

To that point of the absence of real efforts to improve the DAS system, over the years the Northeast Seafood Coalition proposed numerous modifications to the Days at Sea system that were intended to advance the tool to meet the anticipated MSRA requirements. Although some were ultimately implemented, like the "B-Days" concept, they were never adequately administered or utilized by the Council or the agency. Other useful modifications were rejected such as the "Cod Cap," the "Yellowtail Trigger" and further development of the "B-regular day" concept.

It was apparent, however, that these provisions were not taken seriously because they ran counter to the ultimate desire of key Council leaders and perhaps the agency to execute an ITQ allocation of the resource. In my strong opinion, had there been an adequately advanced Days at Sea alternative that could meet MSRA mandates without collapsing the industry, it would have been impossible to have implemented the sector "catch share" program we have now because the industry simply would not have allowed it. The combination of MSRA mandates, a lack of timely biological objectives in the stock assessment, and the resistance to advancing the Days at Sea tool left the industry with a "Hobson's Choice" that led to sectors.

In any case, theoretically, if individual initial allocations are fair, equitable and sufficient, and if adequate quota is available to support a healthy, functioning sector trading system, a sector system can provide useful tools to improve the efficiency of fishing businesses and economic stability overall. As we all know, on paper, a sector "catch-share" system enables fishermen to choose to fish at times and in places that can maximize catch-per-unit-effort, the market value of the catch, and even vessel safety. A functioning sector allocation trading system itself should provide for the greater utilization of the optimum yield of strong stocks consistent with national Standard 1. In theory, a sector "catch share" system should provide important benefits.

When asked whether the sector system is *actually* working in practice, my response is simply—it truly depends on which fisherman you ask. As I indicated, the Council's deliberate decision to abandon the DAS-based currency on which all non-speculative investments in the fishery were previously based, it created instant winners and losers, mostly by pure chance.

If a fisherman happened to have purchased a permit because of its value in allocated DAS—and that permit also just happened to have a lot of catch-history associated with it—then they became lucky winners. If a fisherman bought a permit for DAS purposes that just happened to have very little catch-history associated with it, then they became unlucky losers. A lot of permit holders in the fishery—it seems the majority—had substantial investment stranded in DAS currency and are now faced with a sector allocation and trading system that is not functioning in a way that enables them to recover. Consequently, many permit holders are locked into dire circumstances at no fault of their own. Naturally, that is why you have heard and will probably continue to hear a lot of outrage about sectors coming from the region.

Rebuilding Timelines

The MSRA also revised the deadline for the Councils to prepare and implement measures to rebuild overfished stocks. This deadline was not in itself a problem, at least for New England groundfish management. What continues to present a problem is the 10-year or any arbitrary time-frame for rebuilding resulting from MSA section 304(e)(4)(A)(ii).

While many people have expressed many different ideas about the need for "rebuilding flexibility," as explained below, our consistent view has been the need to simply eliminate any arbitrary time requirement for rebuilding and replace it with a rebuilding strategy founded on natural population dynamics. We don't need flexibility built into arbitrary rebuilding time-frames; we need to get rid of them!

The fundamental MSA objective to simultaneously achieve the biomass that produces the MSY for all stocks in a multispecies ecosystem and fishery is a very expensive one (not to mention biologically unachievable). The least-common-denominator management effect resulting from this objective ensures that in a multi-species fishery, very substantial amounts of the optimum yield of those stocks that happen to be at their high points will be wasted in order for the fishery to comply with the requirements to rebuild all stocks that happen to be at a low point. When I say wasted, I mean that substantial portions of the optimum yield will be left in the

water uncaught and lost to natural mortality. This is the inherent conundrum presented by National Standard 1 for a multispecies fishery in a complex ecosystem.

What often greatly exacerbates this loss of sustainable yield are the arbitrary rebuilding timeframes generated from MSA section 304(e)(4)(A)(ii) which generally require shorter timeframes and lower fishing mortality rates than the true population dynamics of a stock would otherwise require. In other words, even more sustainable yield of the stronger stocks will be lost in the effort to rebuild more quickly. In our multi-species groundfish fishery, approximately 60 percent of the total optimum yield remains harvested each year.

To be successful, a rebuilding strategy based on an arbitrary time-frame either requires knowing the unknowable, or pure luck. The "unknowables" are future recruitment, natural mortality and, consequently, what the correct rebuilding target should actually be 10 years or more into the future. These parameters of fish stock population dynamics are ultimately driven by the dynamics of the ecosystem and environment—things that are completely beyond our control.

And, these ecosystem dynamics are even further complicated by the interrelationships between stocks in a multi-species ecosystem and fishery.

We may get very lucky and by accident choose the right numbers, but far more likely the population effects on a fish population caused by the relatively small portion of mortality we do have control over (fishing) will be far outweighed by the effects caused by those ecosystem and environmental parameters we have no control over and cannot predict.

Instead, as more than one distinguished NMFS Chief Scientist has testified, the arbitrary timeframes for rebuilding set forth in MSA section 304(e)(4)(A)(ii) should be replaced with a strategy linked directly to the true population dynamics of a stock. In other words, a strategy of setting a target fishing mortality rate at the level that will over time, on average rebuild the stock to the biomass that will produce maximum sustainable yield. This fishing mortality rate is known as Fmsy, and managers may appropriately adjust the target with a buffer to reflect scientific uncertainty.

The time it will take to rebuild any stock fished at Fmsy (or as adjusted) will be exactly that which reflects the actual future recruitment and natural mortality exhibited by the stock—parameters that will be dictated by the uncontrollable and unpredictable dynamics of the ecosystem. By definition, this strategy will prevent overfishing and achieve rebuilding which are the true and legitimate biological objectives of the MSA. The policy decision to rebuild more quickly than this strategy was purely a political one, and I should point out that even NOAA Administrator Lubchenco has suggested this question should be reviewed by the National Academy of Sciences (NAS), and that at some point she was in discussions with NAS for this purpose. We would encourage you to follow-up with Dr. Lubchenco on her plans.

Again, the current arbitrary rebuilding time frames have compounded the difficulties in multispecies management, particularly with the 19 stocks subject to our groundfish plan. They force ACLs to be extremely low for some stocks, choking the sector trading system needed to achieve the Amendment 16 objective of increasing the utilization of Optimum Yield.

ACLs

The MSRA requirement to set ACLs for all stocks was never a problem per se'. The need to set annual catch limits was fundamental to the decision to transition the New England groundfish fishery from effort-based to catch-based management anyway.

As explained above, the arbitrary deadline for ACL implementation was problematic for NE groundfish due to the complexity of the broad objectives of Amendment 16 and the lack of updated biological objectives from the new stock assessment before the sector system was set in stone and the implications understood.

As also explained above, those ACLs that were set at artificially low levels for stocks subject to the arbitrary 10-year rebuilding timeframe, exacerbated the least-common-denominator (choke stock) effect on the fishery resulting in even greater losses of Optimum Yield.

Further, what came to light for some of us only after the MSRA was enacted and more fully understood was the profound role the Scientific and Statistical Committees (SSCs) were afforded. While purely advisory pre-MSRA, the SSC's recommended catch levels now dictate the upper limit of the ACLs developed by the Councils according to MSA section 302(h)(6).

The SSC's responsibility to generate catch limits involves following the National Standard 1 guidelines, a process which can generate a range of results, some more conservative than others, but all consistent with the requirements of the Act. This is an extraordinary authority, responsibility and level of discretion for a group that

includes non-Federal scientists and, therefore, is something that should be accompanied by a process of checks and balances.

As we have seen with NE groundfish, there is indeed a great deal at stake in the ACL-setting process—including whether the sector allocation trading system can function. A functional sector allocation trading system is fundamental to the premise that sectors, as coops, can achieve a higher utilization of the Optimum Yield than under the previous system and, thereby, achieve greater economic benefits for sector members. This is among the most important purposes of the sector system. Unfortunately, the ACLs generated for the NE groundfish fishery were set so low for some stocks that when coupled with the narrow distribution of the initial allocation, a vast majority of the vessels that were relatively viable in 2009 suddenly found themselves too far below the break point to actively engage the new system.

NSC has repeatedly noted that MSA section 302(h)(6) does not apply to the Secretary and that this provides the Secretary with critical "checks and balances" authority to intervene if the ACLs need to be adjusted in order to meet other equally important National Standards, objectives and mandates of the Act. With this authority, the Secretary can also serve as a "peer review" of the SSCs application and interpretation of the National Standard 1 guidelines and of the scientific data itself. We feel this is a critical and potentially very useful Secretarial authority that Congress ought to encourage. It appears, however, that this is one of those areas of the statute where the agency's attorneys have adopted a very conservative, unhelpful interpretation.

Finally, I would note that NOAA recently announced the anticipated increases in ACLs for some groundfish stocks. To be clear, these increases were not a result of the Secretary responding to the multiple requests from members of the New England Congressional Delegation to use his authority to adjust the groundfish ACLs described above. Instead, these increases were a natural product of the Framework 44 ACL-setting process generated from Amendment 16. I should also point out that these ACL increases are not a testament to the success of sectors and "catch-share" management as some might suggest. In fact, the data on which these ACL increases are based pre-date the implementation of our sectors.

Senator Brown's Bill

S. 238, the Fishery Impact Statement Honesty Act introduced by Senator Scott Brown and co-sponsored by Senators Snowe and Collins brings focus to another very important issue that became apparent during the Amendment 16 development process.

Because a basic purpose of Amendment 16 was to make the enormous and complex transition from the DAS effort-based management system to the sector "catch share" system, there was a great deal of uncertainty about what the social and economic impacts would be on individual fishermen, ports and communities throughout the region. In any case, everyone knew the impacts would be huge.

However, because so much of what was being developed in Amendment 16 was unprecedented, the required Fishery Impact Statements and associated socio-economic analyses were both difficult to produce and of limited utility or influence in the Amendment 16 decision-making process. In fact, in an effort to facilitate better industry-wide understanding of these impacts in the face of a limited Council economic analysis of the allocation options, the Northeast Seafood Coalition itself commissioned a professional analysis of these options. Unfortunately, none of these analyses had their intended impact and under current law, once the Amendment is implemented, such analyses basically sit on a shelf to gather dust. Further, there is no formal process to go back and assess what the post-implementation impacts actually were—much less do anything about them.

Nevertheless, Congress made clear in both National Standard 8 and the required impact statements that understanding and minimizing the economic impacts of Federal fishery regulations on fishermen and fishing communities must be among the very top priorities of the Councils and NMFS.

Notwithstanding this clear mandate, this has proved to be a weak link in the fishery management process. Although prepared by Council and agency staffs, fishery impact statements appear to have little if any operative effect in the actual fishery management process and have been reduced to a pro forma paperwork exercise.

When originally championed by Senator Olympia Snowe in the 1990s as part of the Sustainable Fisheries Act (SFA), National Standard 8 was intended to provide the crucial, missing balance to those elements of the SFA that were focused strictly on fish stock conservation. In practice, we saw little evidence that National Standard 8 mandate to minimize adverse economic impacts on fishing communities was reflected in the Amendment 16 process.

If enacted we think this legislation would have at least three very important positive impacts on future fishery management. First, it would improve the quality of Fishery Impact Statements given the authors are both independent and would know their work will be reviewed annually after implementation. Second, it would lead to the Council's taking National Standard 8 and these economic analyses far more seriously in their initial decision-making and implementation. And third, the mandate for the Secretary of Congress to actually mitigate unacceptable economic impacts identified in post-implementation reviews would be a giant leap forward in restoring more balance between conservation and economic impacts to the fishery management process. These would be very big improvements that should be given the Committee's full and serious attention.

U.S./Canada

As a final note, I want to express my very profound appreciation to Senators Snowe and Kerry and other members of the Committee and Congress, and especially the Committee staff, for getting the job done on clarifying how the MSA rebuilding provisions will apply to stocks covered by the U.S.-Canada Transboundary Resources Sharing Understanding.

We worked with you on this issue for more than 5 years beginning, in fact, with the development of the MSRA. Thus, I must recognize your exceptional persistence which has already paid off with a critical adjustment to the Georges Bank Yellowtail Flounder catch limits agreed-to by the U.S. and Canada last month.

As is appropriate and intended by Congress for stocks managed by international agreement, the U.S. catch limits for our U.S.-Canada transboundary fisheries will now reflect the true status and population dynamics of the stocks rather than the fishing mortality rate needed to rebuild a stock according to an arbitrary timeframe. The "apples and oranges" approach to fishery management between the U.S. and Canada threatened to collapse the critically needed joint cooperative management of these valuable transboundary stocks, and so I see a very bright future for continued cooperation.

I should also note that while the recent increases in Georges Bank yellowtail flounder catch limits enabled by this legislation are not yet large enough to support a directed fishery, they will make a very substantial difference in alleviating the "choke stock" effect on fishing for other valuable groundfish stocks and on the valuable New England scallop fishery. As this stock continues to rebuild according to its natural population dynamics, we fully expect to see the return of the directed yellowtail fishery on Georges Banks. Thank you again for your hard work in making this happen.

Senator BEGICH. Thank you very much.

Next person is William Bird, Attorney at Law, private—for—and a private angler, himself.

STATEMENT OF WILLIAM R. BIRD, ATTORNEY AT LAW, PRIVATE ANGLER AND MEMBER, COASTAL CONSERVATION ASSOCIATION

Mr. BIRD. Thank you, Senator Begich, for this opportunity to testify before the Senate committee on the implementation of the 2006 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act.

Specifically, I will address how the current implementation of the changes made to the MSA in 2006 are impacting recreational fisheries in the State of Florida.

I would also like to thank Senator Nelson for his work on several important fishery issues for Florida, and his introduction, in the last Congress, of Senate bill 3594, the Fishery Conservation Transition Act.

Many of the points of my testimony have already been touched on, particularly by Senators Nelson and Rubio, but I'm going to proceed and pile on, too; with my apologies to Mr. Schwaab, in any event.

[Laughter.]

Mr. BIRD. My name is Bill Bird. I'm a long-time member of the Coastal Conservation Association and past Chairman and President of the Florida chapter of CCA. I'm a life-long recreational angler, and have enjoyed fishing the beautiful inshore and offshore waters of Florida for the last 25 years.

The passage of the 2006 reauthorization of the MSA ushered in new—important new provisions to end overfishing, improve data collection for recreational fisheries, and requiring, for the first time, necessary economic and social analyses of the impacts of fishery management decisions on all participants in each sector of the fishery.

As a recreational fisherman concerned about the health and abundance of our saltwater fisheries, I view these provisions as critical to improving Federal fisheries management. However, as someone who has followed Federal management of recreational fisheries in Florida for considerable amount of time, I can tell you that there is a management crisis facing many recreational fisheries, with the current implementation of the 2006 reauthorization of MSA.

In an effort to end, once and for all, overfishing of historically overfished stocks, the 2006 reauthorization of MSA included a provision requiring annual catch limits, or ACLs, that must not be exceeded, for every federally-managed fishery. The problem is that, without a recent and accurate stock assessment or a baseline stock assessment for a fishery, there is no way to meet the legal requirement of the 2006 reauthorization that an annual catch limit be established and not exceeded. It is the legal equivalent of requiring drivers to not exceed the speed limit while driving cars without speedometers.

ACLs are a particular concern in recreational species for which there is only poor data or a complete lack of data. In the south Atlantic region, there are several recreationally important and valuable fisheries for which there are—no stock assessment has ever been undertaken, and many others that had an initial stock assessment and then were never reassessed to determine the current health of the stock.

The potentially most egregious example of this can be found in the recommendation, by the South Atlantic Council's Science and Statistical Committee, of a generic formula designed to reduce harvest of stocks of fish that have never been assessed but are otherwise considered healthy and not showing any signs of decline. This formula would be applied to species such as cobia, wahoo, and dolphin in the south Atlantic, all species for which no assessment has ever been undertaken, that have no indication that overfishing is occurring in any of them. The logical option would be to set the annual catch limit for these species at current harvest levels until assessments are performed. Unfortunately, fishery managers are recommending reduced catch levels for these species, even though there is no indication that they are in any trouble.

Recognizing the need to improve information about the status of recreational fisheries, the 2006 reauthorization of MSA provided a potentially valuable provision to establish a national program for the registration of marine recreational fishermen. The new national program was required to be in place by January 1, 2009, but, to

my knowledge, is still not operational. This is not only a failure by NMFS to meet the legal requirements of the 2006 Act, but it also exacerbates the inability of NMFS to properly implement Annual Catch Limits for recreational fisheries that lack timely data.

Improved data collection is imperative to the successful implementation of annual catch limits. Given the failure of NMFS to meet the legal requirements of the reauthorization to establish a national program to improve recreational data collection, NMFS cannot justify shutting down or reducing catch in recreational fisheries under catch limits when there is no data to support those limits for species that are not in trouble.

The mandatory requirements for drafting a fishery management plan were amended in four separate and distinct areas to require economic analyses. And many things are different now than they were when MSA was first passed. And a big part of such analysis is the allocation of the take among sectors, which is an ongoing and important responsibility of MSA.

Coastal State populations have exploded, as have the number of visiting anglers, and allocations have not been adjusted to reflect those realities.

The MSA has a mechanism to accommodate all of these changes. It requires the councils to review and change allocations, as necessary. Fishery managers and councils are inherently reluctant to do this, because allocation of the use of any public resource creates winners and losers, and the inevitable controversy. However, MSA now requires economic analyses of the impact of harvest restrictions on all sectors in a fishery.

Thank you again for the opportunity, Senator. And that concludes my testimony. And I'll be glad to field any questions.

[The prepared statement of Mr. Bird follows:]

PREPARED STATEMENT OF WILLIAM R. BIRD, ATTORNEY AT LAW, PRIVATE ANGLER AND MEMBER, COASTAL CONSERVATION ASSOCIATION

Thank you, Chairman Begich, for this opportunity to testify before the Senate Commerce Committee on the implementation of the 2006 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Specifically, I will address how the current implementation of the changes made to the MSA in 2006 are impacting recreational fisheries in the state of Florida.

I would also like to thank Senator Nelson for his work in the last Congress on several important fisheries issues for Florida and his introduction last Congress of S. 3594, the Fishery Conservation Transition Act.

My name is Bill Bird. I am a long-time Member of the Coastal Conservation Association (CCA) and the past Chairman and President of the Florida Chapter of CCA. I am a life-long recreational angler and have enjoyed fishing the beautiful inshore and offshore waters of Florida for the last 25 years.

CCA is the leading marine recreational fishing group in the United States. Formed by a small group of sport fishermen in Houston in 1977, CCA has grown to become a seventeen-state association with over 90,000 members. Our volunteer membership, which spans from Brownsville, Texas to Portland, Maine to Seattle, Washington, prides itself on passionate grassroots efforts to influence policies and laws that promote sustainable fisheries for recreational anglers. We believe that we, as recreational anglers, have proven that we are and always have been the best stewards of our fisheries.

Over the last 30 years, CCA has been active in a number of conservation issues on both the state and Federal level, including all of the east and Gulf coast net bans; gamefish status for redfish; protective measures for species such as speckled trout, tarpon, striped bass, shad, marlins, swordfish and sailfish; and the reduction of wasteful bycatch through the use of technology and time and area closures. CCA has also pushed for the improvement of fishery management systems through the

restructuring of state and Federal regulatory bodies; the elimination of conflicts of interests by decisionmakers; and the active involvement of its membership in the management process.

The passage of the 2006 reauthorization of the MSA ushered in important new provisions to end overfishing; improve data collection for recreational fisheries; and requiring for the first time necessary economic and social analyses of the impacts of fishery management decisions on all participants in each sector of the fishery. As a recreational fisherman concerned about the health and abundance of our saltwater fisheries, I view these provisions as critical to improving Federal fisheries management.

However, as someone who has followed Federal management of recreational fisheries in Florida for a considerable amount of time, I can tell you there is a management crisis facing many recreational fisheries with the current implementation of the 2006 Reauthorization of MSA.

Ending Overfishing

In an effort to once-and-for-all end overfishing of historically overfished stocks, the 2006 Reauthorization of MSA included a provision requiring "annual catch limits" or "ACLs" that must not be exceeded for every federally-managed fishery.[1] The Senate Report filed with the passage of the Senate MSA bill (S. 2012) provides some explanation of the rationale for including annual catch limits to end overfishing——

> "The [Sustainable Fisheries Act] established new requirements in the Magnuson-Stevens Act designed to prevent overfishing and rebuild overfished or depleted fisheries. The SFA attempted to address overfishing by capping fish harvests at maximum sustainable yield (MSY) and requiring FMPs to include measures to rebuild overfished stocks. However, recent evaluations of stock status have shown that 10 years after enactment of the SFA, *overfishing is still occurring in a number of fisheries, even those fisheries under a rebuilding plan established early in the SFA implementation process*." [2] (emphasis added)

Annual catch limits were intended to put a ceiling on the allowable take in a fishery so as to prevent continued overfishing. As noted in the Senate Report, this was not a new concept, and in fact was the goal of the Sustainable Fisheries Act, which was the reauthorization of the MSA that Congress passed in 1996. However, 10 years later, when the Senate Commerce Committee took up the latest reauthorization of the Federal fisheries law, overfishing of stocks found previously to be overfished was still occurring.

One critical factor of implementing annual catch limits, however, was the requirement to have accurate data on the status of the fisheries. Indeed, accurate data is a prerequisite for establishing a "catch limit" that can then be measured during subsequent fishery years. Without a recent and accurate stock assessment or a baseline stock assessment for a fishery, there is no way to meet the legal requirement of the 2006 Reauthorization of MSA that an annual catch limit be established and not exceeded. It is the legal equivalent of requiring drivers to not exceed the speed limit while driving cars without speedometers.

Unfortunately, species in which there is a significant recreational component have long suffered from poor data or a complete lack of data and a general lack of proper management by the National Marine Fisheries Service (NMFS). In the South Atlantic region there are several recreationally important and valuable fisheries for which no stock assessment has ever been undertaken, and many others that had an initial stock assessment and then were never assessed again to determine the current health of the stock. In spite of a lack of accurate information for many species, NMFS has nonetheless decided to close recreational fishing for some species in order to meet the requirement of annual catch limits. In the case of black sea bass, this decision was based entirely on an outdated stock assessment that previously showed the fishery to be overfished nearly 10 years ago, even though no new assessments have been made to determine if that is the situation presently. The stock is likely rebuilding as planned, because the recreational fishery, which responds to abundance, is catching more fish than the current total allowable catch. However, with the advent of annual catch limits, NMFS has chosen to close the recreational black sea bass fishery in the entire southeast for 4 months, notwithstanding the lack of information on the current status of the stock.

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[1] Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (P.L. 109–479), 16 U.S.C. 1853(a)(15); MSA § 303(a)(15).

[2] U.S. Senate. Committee on Commerce, Science, and Transportation. *Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2005 (to accompany S. 2012)*. (S. Rpt. 109–229), pg. 6. U.S. Government Printing Office Washington, 2006.

Another significant problem we have faced is the potential closure of completely healthy fisheries to rebuild 1 particular stock. In 2007, the first full, modern stock assessment was completed on red snapper, an extremely popular recreational species in the South Atlantic. That stock assessment revealed that the red snapper stock was undergoing overfishing and was overfished. While few questioned that red snapper had been fished to a level below its historical abundance, none questioned that this was a result of decades of Federal negligence in actually managing such an important recreational stock. However, to end overfishing of red snapper, fishery managers considered closing not only the directed red snapper fishery, but also several thousand square nautical miles of the South Atlantic to all bottom fishing to prevent any red snapper mortality as bycatch.

The most absurd and potentially punitive result of implementing annual catch limits can be found in the recommendation by the South Atlantic Fishery Management Council's Science and Statistical Committee of a generic formula designed to reduce harvest of stocks of fish that have never been assessed but are otherwise considered healthy and not showing any signs of decline. This formula would be applied to cobia, wahoo and dolphin in the South Atlantic, all species for which no stock assessment has been undertaken, with no indication that overfishing is occurring in any of them. The logical option would be to simply set the annual catch limit for these species at current harvest levels until assessments are performed. Unfortunately, fishery managers are recommending reduced catch levels for these species even though there is no indication that these species are in any trouble.

If NMFS proceeds to implement annual catch limits under such a draconian approach for data poor stocks and stocks without assessments, recreational fishing in Federal waters could be indefinitely prohibited—a result I am certain that neither this committee nor the Congress ever intended to take place.

One of the goals of annual catch limits was to drive better data collection and provide greater accountability in fisheries management. Some are now concerned that NMFS intends to implement catch limits in such a restrictive manner that no new information on data poor or unassessed fisheries will be gathered, and that these fisheries will simply be closed or the allowable catch will be significantly reduced. Again, this was never the intention of this Committee, and the Senate Report explaining the need for annual catch limits to drive better data was clearly stated——

> "The Committee intends that these annual catch limits, taken with the existing overfishing and rebuilding authorities, will ensure full compliance with the Magnuson-Stevens Act, thereby producing better data collection on the abundance of stocks and eventually providing real time catch figures—information that will help achieve greater accountability in fishery management. The intent of this provision is not only to prevent overfishing from occurring, but also to drive improvements in fishery data collection and research to develop a more precise assessment of the amount of fish that can be caught without exceeding [optimum yield]."[3]

Improving Data Collection for Recreational Fisheries

Recognizing the need to improve information gathering on recreational fisheries, the 2006 Reauthorization of MSA provided a potentially valuable provision to establish a national program for the registration of marine recreational fishermen. The program is authorized "to improve the quality and accuracy of information generated by the Marine Recreational Fishery Statistics Survey, with a goal of achieving acceptable accuracy and utility for each individual fishery."[4] This provision was the result of a National Research Council report on the Review of Recreational Fisheries Survey Methods (2006), which determined that NMFS's recreational fisheries survey methods were fatally flawed and completely ineffective in establishing accurate recreational catch data.

The new national program for recreational data collection was required to be in place by January 1, 2009, but to date the program is still not operational. This is not only a failure by NMFS to meet the legal requirements of the 2006 Act, but it exacerbates the inability of NMFS to properly implement annual catch limits for recreational fisheries that lack timely data. In fact, this committee understood the need to implement improved data collection for recreational fisheries *before* the requirements of annual catch limits could be implemented, when it noted in the Senate Report explaining the national program——

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[3] *Id.* at 7.

[4] Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (P.L. 109–479), 16 U.S.C. 1881(g)(3)(A); MSA § 401(g)(3)(A).

> "Improved [recreational] fishing data collection is imperative to the successful implementation of section 104(7) [annual catch limit section under S. 2012] of the Magnuson-Stevens Act."[5] (explanation of section number added)

Improved data collection is imperative to the successful implementation of annual catch limits. Given the failure of NMFS to meet the legal requirement of the 2006 Reauthorization of MSA to establish a national program to improve recreational data collection, NMFS can not justify shutting down or reducing catch in recreational fisheries under annual catch limits when there is no data to support those limits. Recreational fisheries that have suffered for years from a complete lack of Federal management cannot now be expected to implement arguably the most aggressive legal fishery management requirement ever established.

Considering the failure to properly meet the legal requirement to improve data via implementation of the national recreational registry program, recreational fisheries for which no stock assessment has ever been performed, and those fisheries for which no stock assessment has been performed within the last 5 years, should not be subject to annual catch limits below current levels.

Assessing the Impacts of Harvest Restrictions on Recreational Fisheries

New information and analyses are now required under the 2006 Reauthorization of the MSA. The mandatory requirements for drafting a fishery management plan were amended in four separate and distinct areas to require a description, consideration, analysis and assessment of economic impacts of harvest restrictions on each sector or participant in the fishery.[6] "Sector or participant in the fishery" are defined as "commercial, recreational, and charter fishing."[7] These four separate changes to the requirements for implementing a fishery management plan taken together "*require an assessment of the relative economic importance of the commercial, recreational, and charter fishing sectors of the fishery . . . to ensure that in allocating harvest restrictions among sectors, the economic impact of such restrictions on each sector participating in the fishery is considered*."[8]

Allocation is an ongoing and important responsibility of the MSA. It is a duty that should be performed by the Councils on a periodic basis to ensure that all sectors of the fishery are being treated fairly, and that the public's resources are being used for the best benefit to the Nation. It is also the best way to accommodate the biological, economic and social changes in a fishery. The world today is not the same world that existed in 1977. Look at the population growth in only two states along the Gulf Coast over the life of the MSA. Florida has grown from about 8 million residents in 1977 to over 18 million in 2010. Texas has grown from approximately 13,000,000 to 25,000,000. Not all of the new population has gone saltwater fishing, but a substantial portion of them have. Florida is reported to have some 3,000,000 saltwater anglers, Texas another million. Those numbers do not include the many visitors that come to fish the same waters. All of these anglers are fishing the same stocks that existed in 1977.

These anglers are not fishing with the same level of efficiency as they were in 1977, either. Most of the present day fisherman use significantly better gear today than their parents did. In the 1970s, offshore recreational fishing was undertaken with primitive sonar, boats with inboard engines and little knowledge of things like release mortality. Today we can go twenty miles offshore in a boat with three 350 horsepower outboards and locate a reef the size of this table. Technology has made today's angler much more efficient. It has also produced a significant industry for fishing tackle, electronics and boats. NOAA estimates that marine recreational fishing contributes some $80 billion to the U.S. economy, which includes a lot of jobs here at home. A big part of that, especially for the Federal fisheries, is the sale of boats. The National Marine Manufacturers Association estimates that recreational fishing takes place on some 70 percent of the boats sold in the U.S.

The MSA has a mechanism to accommodate all of these changes—the Councils need to review and change allocations as necessary. Fishery managers and councils are inherently reluctant to do this because allocations of the use of any public resource creates winners and losers and the inevitable controversy. However, the MSA clearly points to the elements necessary to consider changes in allocation. It now requires economic analysis of the impact on the various sectors of changes in the

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[5] U.S. Senate. Committee on Commerce, Science, and Transportation. *Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2005 (to accompany S. 2012)*. (S. Rpt. 109–229), pg. 38. U.S. Government Printing Office Washington, 2006.

[6] MSFCMRA (P.L. 109–479), 16 U.S.C. 1853(a)(5),(9),(13),(14).

[7] *Id.*

[8] (S. Rpt. 109–229), pg. 21.

fishery. It has always required an analysis of the fairness of any redistribution of the resource and the conservation impact of the measures on each sector.

My State of Florida, along with many other states, has managed such changes constructively. In many cases, states have declared gamefish status for key recreational species. In Florida there are no sale provisions for snook, tarpon and bonefish. The state has banned the use of highly-destructive and non-selective gear like gill nets. It has placed size, season, and bag limits on recreational fishermen that have allowed for continued access to the fisheries but also conserved the stocks. Last, they have enlisted the support and cooperation of the recreational angling community to ensure acceptability and compliance. All of this has been allocative, and all of it was done to provide greater access to the public resource. NOAA recently adopted a catch share policy which includes a requirement that allocation decisions be made by the regional Councils to reflect the social, economic and conservation needs of the fishery. The Gulf Council has recently initiated just such a review for red snapper, gag and red grouper. The outcomes of these reviews must reflect the reality on the water. We can no longer close out the public because of decades old allocations based on historic catches of 20 or 30 years ago.

Thank you again for the opportunity to comment on how the current implementation of the changes made to the MSA in 2006 are impacting recreational fisheries in the State of Florida. The problems I have described are real, and the impacts are creating a damaging rift between conservation-minded anglers and the Federal agencies charged with managing our fisheries. It is critical that before annual catch limits are imposed on data poor fisheries and fisheries that have had no assessments, the Congress require program funds for more stock assessments and improved data collection.

We would like to work with the Subcommittee toward that end. Mr. Chairman, that concludes my testimony, and I would be happy to take questions.

Senator BEGICH. Thank you very much. Thank you for your testimony.

Let me, if I can—Ms. Madsen, I want to—you were—you stayed through the first round of the panel. You heard some of the Senators, here, in regards to the Northeast. You've heard, now, some additional commentary. In your opinion—help me understand—I mean, in Alaska we have gone to catch shares, we've gone to, you know, rationalizing our fisheries in a way that—instead of just first out gets whatever they can get. Why do you think it doesn't work, or at least it's not embraced aggressively, in the Northeast? I—and I only—I ask this because it seems—our history, today in Alaska, is very positive, but the history, when we started with this, was not as—I mean, we went through some trying times to get to where we are today. Would that be a fair statement?

Ms. MADSEN. Yes, Mr. Chairman.

Senator BEGICH. I mean, it just didn't happen overnight.

Ms. MADSEN. No.

Senator BEGICH. And that's why I still call them the "fish wars." I think we remember those well.

Why do you think it's not embraced from the—kind of a fisherman's viewpoint of—in the Northeast, yet, in how to manage this resource differently? Or—and can it work? Can what we do in Alaska really work elsewhere?

Ms. MADSEN. Mr. Chairman, thank you for question. I think that from—my personal view over the years is that—I think the first thing that has to happen is the good science, and the trust between the fishermen and the managers and stock assessment authors, and a transparent process. If you're going to doubt the fundamental basis that you're going to set these annual catch limits on, I'm not sure how you move forward from there.

I believe that maybe it's just a convergence of untimely issues. I think the Northeast seems to have to face two things at once, pos-

sibly; and that is the implementation of annual catch limits, which they have not had before, and, in addition to that, a new catch-share model that they're not familiar with, either. And so, those two things seem to be happening at the same time in the Northeast, which probably does cause people a lot of concern, a lot of uncertainty.

So, Mr. Chairman, briefly I would say, you've got to get the science, you've got to trust the science, you have to have a transparent process, you have to have buy-in. I think that once people get comfortable that they know what the actual available catch is, then I think people can start focusing on how to maximize the value of the limited catch that they might have. And I think that's what we have done in the north Pacific.

Senator BEGICH. Let me—when it was originally set up, or when elements were set up, how did—or how did we remind—I guess, for the record here—the connection to the communities, how did we deal with the economic issues of the communities? In creating that balance, as mentioned by Mr. Bird, there are winners and there are losers, absolutely. So, how did we address that?

Ms. MADSEN. Mr. Chairman——

Senator BEGICH. Or—yes.

Ms. MADSEN.—again, I think that people oftentimes forget that the councils have to consider a lot of laws besides Magnuson. And I certainly think that there are other laws that have to be considered that have to take in socioeconomic impacts to both communities, under National Standard A, and small and large players in the industry. I think it is a balancing act.

In our examples, we have required landings to occur in certain communities, when we move to a rationalized program, so that you don't—we did have one IFQ program, in halibut/sablefish, that didn't have landing requirements. And we did see a shift and a loss of revenue in a lot of smaller Southeast communities, because of the increased value that went to the road systems in Alaska. So, I think we learned from that. And we designed a program that required certain landings to be maintained to protect those coastal communities.

Additionally, we had the community development quota in the pollock fishery that allocated 10 percent of the pollock quota to 56 communities that lived on the coast of the Bering Sea, that now have become investors and owners in the resource. That was another example. They're also looking at a set-aside, in the Gulf of Alaska, for coastal communities that want to, kind of, bootstrap their constituents in those communities, to provide some start-up quota for them to get into the fishery, that they can then buy into the fishery, when a rationalized program.

So, I think—in short, Mr. Chairman, I think the Council has tried to limit the barriers to entry for communities in Alaska.

Senator BEGICH. You think some of this can be—this—the concepts can be exported out to New England and other parts of the country?

Ms. MADSEN. I think that if you can get over the rift that Senator Snowe talked about, between—the lack of trust between the science and the fishermen—yes.

Senator BEGICH. OK. Thank you very much.

Mr. Giacalone, let me ask you a couple things. How long has sector management—I'm not as familiar with the Northeast, but how long has the sector management program been in play?

Mr. GIACALONE. Sector management actually was implemented, as a provision that could be utilized voluntarily, in 2004 in the previous Amendment 13.

It was utilized by two sectors. First one was on a pilot level, directed cod fishery. And then the second one was a very similar, almost a brother-type sector. So, it was never used in a broad application. It was never used on all gear types.

So, we're just completing—we've got a month and a half left to our first full fishing year, where the entire fishery is basically under this sector management.

Senator BEGICH. Have you seen—in the allowable catch, have you seen increase?

Mr. GIACALONE. Not yet. On some species, we've seen some increases. The incentives have created more targeting of some of the healthier stocks. But, we haven't seen an overall increase in yields.

Senator BEGICH. Have you seen any change in the economic element of it—or its—more value, less value, the same?

Mr. GIACALONE. None that we can tie to the supply, yet. It's too early, I think, to see the market differences. We have had a fairly strong market this year, but it doesn't seem to follow any trend with consistency of supply over the years prior. So, we're not seeing it.

We do see a big difference in the economics of the fishery. And one of them is, the cost of fishing is now dramatically increased. And I—we still don't see any economic studies that are looking at that. I know what my gross revenue is this year, and it's a lot more than it was in previous years, but my net is a lot less. The cost of renting fish, right now, is somewhere—anywheres between 40 percent and 80 percent of the X-vessel value.

And where it's dramatically, starkly different than what goes on in the Northwest is that we don't have a bunch of bycatch fisheries. What we have is—or bycatch species—what we have is 19 stocks that each stock is someone's target and someone else's bycatch. And the stock assessments are so volatile from year to year that your bycatch this year becomes your target next. So, that makes it a lot more complicated, that you can't just, you know, dole out the—so people are paying for hot-target species, in order to stay in business right now, which is not very economically viable.

Senator BEGICH. Are you going to do anything, within your group—as a coalition, are you going to do anything in any economic analysis after the season is done? Are you going to do anything that say, kind of, the—to analyze what you think are—worked, what didn't work?

Mr. GIACALONE. We're now consulting with several folks that are in the research community, both public and private. And right now, the resources that we have—the human resources—are totally tapped out with just trying to stay up with the reporting and the requirements that come with the new system, and ironing the bugs out of it. So, we don't have the resources to actually be doing the work, but we are compiling the data.

Senator BEGICH. And you—I'm assuming you would—that getting that kind of data would be helpful in analyzing the future. Correct?

Mr. GIACALONE. Absolutely.

Senator BEGICH. OK. Let me ask just a couple of quick last questions, then I'm going to close it out, unless someone pops in here, last minute. I don't—I'm a believer that once we've done asking the questions, I don't have to wait for other people if they're not here.

So, let me ask, Mr. Bird, if you could comment, in general. Your agreement—or your comments lead me to believe—and I think I'm starting to hear, not only from the four in Southeast, but also the Northeast, that there is a grave concern of—and I'll ask, actually, both of you, if possible—and that is regards to the data and the trust level. What do you think are the steps to ensure that—as Ms. Madsen mentioned—how do we build the trust on making sure the right research data is there for both of your areas of fishery? So, when you look at that data—and I will just tell you, from Alaska experience, we see—you'll always have some fishermen that don't like the data.

Is that a fair statement, Ms. Madsen?

Ms. MADSEN. Yes, Mr. Chairman.

Senator BEGICH. No matter what the data says. It could say that there's going to be a lot of fish and they say, "Well, that's not enough." Or, not enough one day, then it's too little.

But, knowing that, do you think there's a point—and what would cause the opportunity to create a better trust with the agencies, in regards to the data?

Let me start with Mr. Bird, then I'll come back to you, Mr. Giacalone.

Mr. BIRD. You know, Senator, I think what has to—where you have to get is where a majority of the people on the water, what they see matches up with what the managers are telling them, in terms of abundance and fishing levels. Once you get there, I think you will get buy-in, particularly from the recreational community. I think that the recreational anglers have always been the best stewards of the resource. And if we have any faith, as a group, that what we're being told needs to be done to properly manage the species, we'll buy into it.

Senator BEGICH. And that means making sure the stakeholders are at the table, right?

Mr. BIRD. Correct. And I think it also means, as Mr. Schwaab has recognized, we need fishery-independent data, in addition to data just from the fisheries themselves.

Senator BEGICH. So, peer review and others.

Mr. BIRD. Yes. And ultimately, it comes down to commitment of money and time and effort to get there.

Senator BEGICH. Mr. Giacalone?

Mr. GIACALONE. I would echo what Mr. Bird just said on that. And the fishery-dependent data and getting the industry involved—there have been a lot of programs that have be conducted for industry-type side-by-side surveys, and I think that's an absolute essential thing for buy-in.

A big problem for us is just the understanding that a lot of it is driven by the law, and sometimes it's falsely—the blame is placed

on the science. The SSCs are required to come up with rebuilding programs that are—or mortality rates that are, in essence, trying to—with very little time left, trying to get there, where you can't—you know, you try to get there from here, and you can't reach there. And that's driving very small TACs, even on—as the stock is increasing; that's what a lot of people don't understand. So, fishermen would believe that, "Why are we reducing TACs, when we see the stocks increasing and they're admitting that the stocks are increasing?" Well, it's because we have a rebuilding target that may be unattainable. So.

Senator BEGICH. Let me—I'm going to—I said that was my last question, but I don't want to leave Dr. Hogarth without any opportunity.

Do you want to comment, anything, in regards to what you've just heard in the—some of the comments from the other three panelists?

Dr. HOGARTH. I think they hit it right on the head.

I think one thing, though, is that you do have to recognize that Alaska has a tremendous fishery. And when you deal with the south Atlantic, for example, and you deal with what we used to call "boutique fishers"—they're very small, and you don't have the opportunity to really build in much margin; if you do, then you don't have a fishery left.

I think the key is science. The key definitely is science, and timely science. The fishermen see things; they're on the water every day. And the science that we've been able to collect in the agency is—sort of lags behind. And I think you have to look at using full resources that the—the Federal Government has a fleet of vessels, have to be operated fully. And I think, if you check, they're not being operated fully, because of money, fuel costs, things like that. So, I think you have to—we have to begin to look at the science, cooperative research, and bringing the fishing industry along together.

We knew this was a tough law, back when we dealt with it. We talked about this. But, there are 139 species that have pretty much vanished. There are 522 this—the councils have a responsibility for. And I think you have to, somewhere along this line, figure is it—where do you put your money? And can we really afford to look at 522 species and how they fit together in an ecosystem approach?

And so—but, I think the agency has an enormous job ahead of them. I think they have the tools to do it. And I think that we have to figure a way to get the industry and the fishermen together.

I—at the University of South Florida, I have started a new course in marine resource assessment, for what I learned here, from the government. And it's amazing how much interest it had the first year of the course; taught by the Federal Government, by their scientists and our scientists.

We had to turn away students from the course. And it has been helped financed by the National Marine Fisheries Service, because they need—know we need more stock assessment people. And we need to learn to look at the oceanographic conditions to why the fish behave.

So, we have a lot to learn, but I think the Act is working. And I think that's what we need to look at. We need to look at how to

tweak it so that—so some of these data-poor and mixed and weak stocks, we can look at differently.

And thank you for the opportunity.

Senator BEGICH. No, thank you very much.

And I appreciate all your testimony.

I'm going to just lean back to my staff, here, and make sure I did not forget anything I'm supposed to be doing here. So——

[Pause.]

Senator BEGICH.—one last comment just, again, for not only the four panelists, but others, that the record will be held open for the next 2 weeks for additional questions and comments that will be put into the record.

Again, to all four of you, thank you very much for being here this morning. And we appreciate your testimony. And also, again to remind you, your full text of your comments will also be part of the record.

Thank you very much.

This committee meeting is adjourned.

[Whereupon, at 12:20 p.m., the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF HON. FRANK R. LAUTENBERG,
U.S. SENATOR FROM NEW JERSEY

Mr. Chairman, thank you for calling this hearing and giving us an opportunity to discuss this important issue.

More than 5 years ago, we amended our Nation's fisheries laws to better protect the health of our marine ecosystems and our vibrant fishing communities.

I am proud that the law included my language to safeguard deep sea corals—which are sometimes known as the "rainforests of the ocean" because of the diversity of species that call them home.

We know that we must ensure the sustainability of fisheries—not just for the health of our oceans, but for the continued success of the U.S. fishing industry.

Across the country, commercial and recreational fisheries support nearly two million jobs and generate $163 billion in sales annually.

In New Jersey, the commercial and recreational fishing industries are cornerstones of our $50 billion a year coastal economy.

Up and down the shore, you see commercial fishermen bringing in their catch, and hundreds of New Jerseyans working in the processing plants that get our seafood out to restaurants across the country.

You see shipbuilders and other businesses that depend on a strong fishing industry.

And you see recreational boats carrying kids out for their first fishing trip, or groups of tourists that come to the shore for the fishing, but also spend their money in our hotels, restaurants, and casinos.

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act passed the Senate by unanimous consent in 2006, with strong support from both parties and a variety of stakeholders.

As with any law, time has revealed elements that have worked well and elements that have not.

On balance, the law has been a success.

The goal of the law was to end overfishing and rebuild fisheries that had been overfished within 10 years.

And 5 years down the road, we have made admirable progress.

But we have also heard complaints from fishermen and others about some aspects of implementation of the law.

I want to make sure that NOAA is listening to the fishermen and communities that know their local waters best.

And we must take steps to ensure that regulators are using the best available science at all times.

I look forward to hearing from Mr. Schwaab how he intends to address these issues, and from other witnesses on how we can improve implementation of our fisheries laws.

Thank you, Mr. Chairman.

PREPARED STATEMENT OF HON. KELLY AYOTTE,
U.S. SENATOR FROM NEW HAMPSHIRE

Catch limits and sectors established by NOAA for the Northeast Multispecies Fishery Management Plan represent significant obstacles for the fishing industry in New Hampshire. Because NOAA has been relying on incomplete and in some cases nonexistent data, it is difficult to trust the agency's current basis for establishing catch limits and assigning catch shares.

NOAA has been measuring fish stocks and catch history in New Hampshire based on insufficient records and, as a result, subjecting the fishing industry to unnecessary and burdensome regulations. This represents bureaucracy at its worst and is forcing historically small New Hampshire fishermen out of business.

Sustainable fisheries are in everyone's best interest. However, in keeping with National Standard 8 of the Magnuson-Stevens Act, we must ensure that efforts to sustain fish stocks do not adversely impact our fishing communities. According to a 2008 report, the commercial and recreational fishing industries in the United States are worth $163 billion and responsible for 1.9 million jobs. With the unemployment rate hovering around or above 9 percent for the past 22 months, NOAA should not be putting more Americans out of work by regulating this industry out of business.

PREPARED STATEMENT OF ROBERT E. DOOLEY, PRESIDENT, UNITED CATCHER BOATS

House Subcommittee on Insular Affairs, Oceans and Wildlife—
House Committee on Natural Resources

OVERSIGHT HEARING: A COMMUNITY PERSPECTIVE ON CATCH SHARES
—Thursday, April 22, 2010 10:00AM

Chairwoman Bordallo, Ranking Member Young, and members of the Subcommittee; thank you for the opportunity to testify before you today regarding NOAA Catch Shares and, in particular, the West Coast groundfish rationalization plan. My name is Bob Dooley. I am the President of United Catcher Boats and co-owner of a commercial fishing company with my brother John.

John and I have lived in Half Moon Bay, CA our entire lives and have been commercial fishermen for over 40 years. Our families have been active in commercial fishing and its supporting businesses on the West Coast for over 70 years. We presently own and operate three vessels. Two participate in the Alaska Pollock fishery and the West Coast Pacific Whiting fishery and our third vessel fishes Dungeness crab off the West Coast.

United Catcher Boats (UCB) is a trade association of 62 commercial fishing vessels that participate in the Alaskan Pollock, Alaskan crab, and West Coast groundfish fisheries. Our vessels are called catcher boats because that is all we do—we catch fish and deliver our catch to processing facilities. UCB members are very familiar with the benefits of catch share programs, participating in American Fisheries Act Pollock cooperatives as well as the Alaskan crab IFQ program, both of which were approved by Congress and developed through the North Pacific Fishery Management Council process.

I am here today to express the strong support of both UCB and myself for Catch Shares programs in general and specifically for the West Coast Trawl Rationalization Program approved by the Pacific Fishery Management Council (PFMC). We also support the subsequent request for Federal funding to help implement this new fishery management program that is presently in the President's FY 2011 draft Budget.

I participate in the fully rationalized Bering Sea Pollock fishery in Alaska. That fishery was fully rationalized in 1999 through the provisions of the American Fisheries Act. I not only helped in the implementation of that program but also have the unique perspective of having participated in this trawl fishery since 1981. I have seen the problems an open access race for fish creates and the resulting downward spiral, both economically and environmentally. I have witnessed first hand the benefits to the health of the fishery, communities, crews and environment a rationalized fishery provides. This is what has been missing in the current and past management of the West Coast trawl fisheries.

Over the past two decades the PFMC has struggled with finding a way to rebuild depressed fish stocks off the West Coast, implement an accurate catch accounting system both at-sea and at the dock, and structure the fishery so the trawl boat owners can once again be profitable and thus support the local communities that they live in and deliver their harvests to. During this time period, the Federal Government has declared the Pacific Coast ground fish fishery a Federal disaster and the PFMC has implemented a license limitation program that did not control effort. The fishery has been managed via monthly trip limits that required regulatory discards and has a minimal observer program. Congress authorized and funded a vessel and license buyback loan program that failed to reduce overall effort in the fishery. My 2009 Pacific Whiting Season lasted just 3 weeks. All of these measures have failed to rebuild the fishery and the value of the fishery continues to be at an all-time low. Six years ago, the PFMC embarked upon a project that would allow for "rationalization" of the West Coast Trawl fishery, otherwise known as a Catch Share program, and last year made their final recommendation to the Department of Commerce.

This new management program is scheduled to go into effect just prior to the start of the 2011 fishery.

The first point I would like to make is that this program was developed from the ground up with full participation of all stakeholders in the West Coast groundfish fishery from Southern California to Northern Washington. This is not an example of NOAA Headquarters in Washington, D.C., trying to impose catch shares on the fishery. The PFMC established a special stakeholders committee that included a broad membership of fishermen, processors, NGO's and community representatives. Out of this open process came a preferred option for an IFQ-based system for the shoreside groundfish and Whiting fisheries and a Co-op-based system for the offshore Whiting fisheries.

The second point I want to make is that this new program will do two things that will have a dramatic positive effect on the health of the fish stocks and the value of the fishery. The first is that it will end the practice of "regulatory discards." Under the present trip limit style management fishermen are required to throw valuable fish overboard. This discard is subtracted from existing quotas under an assumed estimated discard rate thus contributing to the actual decline of the resource while no value is being added to the fishery or our communities. Under the new program, each fisherman will be allocated their own quota, or percentage, of the stocks of fish they catch and once they reach their assigned amount, will either have to stop fishing or find another fishermen to acquire fish from. This individual allocation allows each fisherman the opportunity to harvest their own fish when it is most valuable and the ability to utilize each pound of their quota to return the maximum benefit to themselves and their communities.

The second thing that will occur under this new program is accurate accounting all fish that are harvested. Every boat will be required to carry a Federal observer that will account for the harvest at-sea. There is also a requirement of a Federal weigh-master at each processing or receiving plant to observe the delivery of fish and to check the weight of each delivery. These measures will result in accurate accounting of the fish that are harvested and delivered.

My third point has to do with Federal funding of this new Catch Shares Program. To implement this new West Coast program, NOAA is requesting about $12 million in the FY11 budget. A large portion of this requested funding will go to help fishermen afford the cost of having a Federal observer on board their boats (estimated at between $300 and $900 per day per observer).

Note that this request of funding is not a request to *subsidize* the Federal groundfish trawl fishery. In fact the Federal Government has the authority under the Magnuson-Stevens Act to assess fishermen a LAPP management fee of up to 3 percent of the value of the fishery. The fishermen participating in the program will pay an annual fee for the cost to manage the fishery. The $12 million request is for the start-up cost of the program in 2011.

Some have said that this funding for implementation of our new Catch Shares program will take funds away from current collaborative fishery research and fishery science research. This is simply not true. Mr. Barry Thom, the Acting NMFS West Coast Regional Director, and Dr. Eric Schwaab, the newly appointed head of NMFS, both have stated recently that the new Catch Shares programs will not take Federal money away from current research programs (Mr. Thom at the March 2010 PFMC Meeting in Sacramento and Dr. Schwaab at the previous House Resources Subcommittee hearing on Catch Shares on March 16, 2010.)

Good management of a fishery requires accurate stock assessments of the fish populations, and a reliable system to determine the amount of fish that can be sustainably harvested all based on good science. Catch Share programs in other parts of the country and world have resulted in the stakeholders, namely the fishermen, demanding the best available science and research be used. The reason for this is under a Catch Share system the fishermen have a *vested* interest in the sustainability and health of the fishery resource.

Catch Share programs also set up the opportunity for fishermen to find solutions to management problems without a government mandate, or regulation. Rather, fishermen work cooperatively to find creative, voluntary programs to solve real problems. Let me give you a couple of examples of what I am talking about by looking at the Bering Sea Pollock fishery. The first is the Pollock fleet's actions to address the problem of incidental salmon bycatch taken while we are fishing for Pollock. Under our co-op system, the boat owners developed and approved a voluntary program to close small, discrete areas on the fishing grounds for a limited duration when high rates of salmon bycatch are encountered. We call these areas Hot Spot Avoidance Areas. Unlike the government, we are able to close these areas to individual boats or a group of boats that have above average rates of salmon bycatch while keeping these Hot Spots open to boats that have low rates of bycatch. This

fleet-sponsored bycatch avoidance program can only happen when we are operating under a Catch Share program. We are beginning the process of designing a rockfish bycatch avoidance and management program for the West Coast Whiting fishery when the Groundfish Trawl Rationalization program goes into effect. So what we did in the Alaska Pollock fishery due to AFA we will do in the West Coast Whiting fishery. Our goal is to harvest 100 percent of our allocation while at the same time stay under a bycatch cap for incidentally caught species. Government initiated regulations have failed to achieve this goal.

The second example is the development of a salmon excluder device. Through a Pollock industry initiative, we designed, developed and tested a number of devices to put into our mid-water trawl nets that exclude the bycaught Chinook salmon. After 4 years of trials and testing we now have arrived at a device that over 60 percent of the Pollock fleet is now using -without any government regulation requiring us to do so.

As I mentioned in my introductory comments, I fish in both the rationalized Bering Sea Pollock fishery and the soon-to-be rationalized West Coast Whiting fishery. I can tell you that back in 1998 when Congress and the North Pacific Fishery Management Council were developing the American Fisheries Act, many of us out on the water fishing were very skeptical of this new program. Because of this, our concerns expressed at NPFMC meetings when they were developing the AFA regulatory provisions were very skeptical and there were a lot of boat owners that were quite nervous and in fact didn't support the program. You have to realize what we were going through in those days. Most if not all of the fishermen were just trading dollars and a number of the Pollock companies had gone bankrupt. In addition, many of the multi-national, large fishing companies were acquiring a lot of the vessels and consolidation was happening. During a 10-year period, from 1989 –1999, the Pollock industry experienced three bloody sector allocation battles at the NPFMC. For me personally, the only reason I am still in the Pollock business is due to the provisions of the AFA that gave me and my brother a certain, known allocation of Pollock annually and the ability to get the most value out of our harvest of Pollock. The ownership and use caps in this law have protected the smaller fishing companies. I do not know a single participant in the Bering Sea Pollock fishery today that does not emphatically support the American Fisheries Act and the rationalized manner of the fishery.

I can also tell you that the Whiting fishermen who also fish Pollock, like myself, were the first ones to go to the Pacific Fishery Management Council and ask for an AFA-style co-op management structure 6 years ago, to address the very same problems we were experiencing in the Alaska Pollock fishery 15 years ago. Again, this is a "ground up," not "top down" built program and one that the fishermen who are dependant on this fishery are very excited about.

Thank you very much for the opportunity to share my and UCB's perspective on catch shares.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BILL NELSON TO ERIC C. SCHWAAB

Question 1. As I've said, there is a serious lack of data on many recreational and commercial fisheries both in the Gulf and the South Atlantic. This, combined with the National Marine Fisheries Service interpretation of the reauthorization of Magnuson-Stevens, has led to very restrictive harvest and season limits. It is my understanding that other Regions have better science even with limited resources. Can similar alternatives be used in the Gulf and South Atlantic for data-poor stocks instead of presuming the worst and resorting to overly restrictive harvest measures?

Answer. Harvest and season limits are needed to prevent fisheries from overfishing. Some fisheries have large numbers of participants and the degree of management can be high just to get the total catch down to the biological limit. Where data about the biological limit and other factors have higher levels of uncertainty, it is necessary to use additional mortality reductions to account for the chance that the actual biological limit is lower. In some fisheries, this additional reduction for uncertainty has been a 25 percent reduction from the theoretical maximum allowable catch.

The increased difficulties of dealing with data-poor situations are shared throughout all of the various NMFS' Regions. The Gulf and South Atlantic are somewhat unique in this regard because of, among other things, the relatively large participation in the recreational fisheries, which can present a different set of challenges than those of the commercial operations. In an effort to foster collegiality and consistency in the approach to the problem, this issue was a topic of a recent National

Scientific and Statistical Committee meeting. The workshop revealed that there are many different approaches to meeting the Magnuson-Stevens Fishery Management and Conservation Act National Standard 1 guidelines relative to incorporating scientific uncertainty into the setting of Annual Catch Limits. Where feasible, Scientific and Statistical Committees are considering the P* approach, which uses quantified scientific uncertainty to set Acceptable Biological Catch at a level to match a pre-specified probability of overfishing. Variations include the methods used to calculate scientific uncertainty; tiered approaches linked to the quality of information about uncertainty; inclusion of stock productivity scores in the risk calculation; and fixed buffers where uncertainty is not fully quantified.

The South Atlantic Scientific and Statistical Committee has developed tiers and dimensions (assessment information, uncertainty level, stock status, productivity and susceptibility) to establish a control rule framework for Acceptable Biological Catch determinations. The Gulf of Mexico Council is developing an approach that generally mirrors the South Atlantic. Further efforts to share methodology for dealing with data poor situations were shared at the NOAA-sponsored American Fisheries Society 2010 session entitled, "Stock Assessment Methods for Data Poor Situations." Presentations were given by NMFS scientists from both U.S. coasts and advising all the various Regional Management Councils. Developing alternative methods suited to data-poor situations is an ongoing process in the development of improved stock assessment methods by NMFS.

Question 2. During the *Deepwater Horizon* oil spill in the Gulf of Mexico, NMFS ramped up efforts at data collection. I've heard that there is often at least a month lag between the time NMFS collects data and when it is available to the regional fishery management councils. Can you assure me that the latest and best information will be made available to the councils in a timely manner so that they can make informed decisions?

Answer. Stock assessments are based on several sources of information: fishery-independent data on population trends, obtained from field surveys; and fishery-dependent data, obtained from landings data, fishery observers, and, for stocks with significant recreational fisheries, from surveys of recreational fisheries. NMFS is taking several steps to increase operational efficiency and reduce the time between data collection and the application of the data to management decisions.

In the FY 2012 President's Request, NMFS is requesting $67.1 million to expand annual stock assessments, an increase of $15 million. These funds will be used to improve assessments for high-priority stocks; update assessments for stocks more frequently; and, conduct fishery-independent surveys to enable assessment of more stocks, including data poor stocks, 3–5 years from now. NMFS proposes to use a portion of these funds, $3 million, to invest in advanced technologies for fishery-independent surveys. Among the projects that would be supported with these funds is near real-time processing of survey data as it is collected at sea and more rapid delivery of these data to shore-based analysts conducting the stock assessments.

For fishery-dependent data, NMFS is currently developing new ways to improve the data quality and timeliness of recreational catch data. Our Marine Recreational Information Program (MRIP) has begun the use of electronic logbook reporting in the Gulf of Mexico to speed up data processing. NMFS also hosted an MRIP workshop focused on improving the timeliness for recreational catch data. The workshop was able to identify key ideas that could increase timeliness for recreational fisheries and improve the ability to make in-season management decisions. The President's FY 2012 budget request therefore includes an increase of $3 million to leverage these current recreational fisheries monitoring efforts, $2 million of which would allow MRIP implementation to address the timeliness issues identified in the aforementioned workshop and $1 million to fully implement electronic logbooks in the Southeast Region.

NMFS is also working to increase observer coverage and the number of staff available to process and manage the data collected by observers. This is important because observers collect high quality information on catch and bycatch that is directly incorporated into stock assessments. Biological samples such as ear bones (otoliths), fin rays, or vertebrae collected by observers are used to determine the age of fish, a critical component of any stock assessment. Unbiased, fishery-dependent catch and bycatch data from observer programs are also used in stock assessments. Additional staff, including fisheries scientists to process the data, would increase the timeliness of catch and bycatch estimates.

NMFS is working with the Scientific and Statistical Committees of the Regional Fishery Management Councils to streamline the scientific review process, so that more assessments can be delivered quickly to the councils as updates, rather than as extensive investigations that require more thorough peer review. The tempo of

assessment updating was a significant topic at the NMFS-sponsored workshop in February 2011 on the scientific needs for implementation of annual catch limits.

Question 3. How does the National Marine Fisheries Service prioritize which stocks to assess?

Answer. NMFS rationale and protocols for conducting fish stock assessments are generally described in the Marine Fish Stock Assessment Improvement Plan published in 2001. Although the Stock Assessment Improvement Plan did not include explicit criteria for prioritization of stocks to be assessed, each NMFS' Region uses similar concepts in selecting stocks to be assessed for the first time or as an update of a previous assessment. In 2010, a prototype set of national criteria was developed and used in setting priorities for additional stocks to be assessed with the FY 2012 request. This prototype set includes:

1. Commercially and recreationally valuable stocks and associated fishery-limiting stocks with high scientific or management uncertainty influencing annual catch limits;

2. Intensity of fishing, including stocks that have an overfishing status, stocks that have fishing rates approaching levels that would lead to overfishing, or stocks with high or increasing fishing pressure that require additional attention;

3. Stock abundance including stocks that are overfished or on the brink of overfished, on a rebuilding plan, or have uncertain abundance trends;

4. Assessment frequency considerations such as stocks that have never been assessed, stocks that have an assessment that is more than 5 years old, or stocks with management plans that require more frequent updates than currently provided;

5. Stock importance in terms of commercial and recreational value, role in ecosystem, and as bycatch; and

6. Synergistic factors, including level of data already available and benefit to other stocks and future assessments.

Ultimately, the particular assessments that will be updated in any given year are determined through regional processes consistent with national priorities and in consultation with the Regional Fishery Management Councils and other partners as the execution year approaches.

Question 4. Does the Magnuson-Stevens Act actually mandate the use of scientific and management uncertainty, or does that come more from a National Marine Fisheries Service Policy?

Answer. The Magnuson-Stevens Act requires conservation and management measures to achieve a number of goals, including preventing overfishing while achieving optimum yield. The Act also requires use of the best scientific information available. Uncertainty is an inherent part of the information available for use in managing a fishery. Identification and consideration of uncertainty is necessary to achieve the required objectives of the Act, including those of National Standard 1.

Recommendations to incorporate uncertainty and manage catch at a catch limit are not a new concept. NMFS described scientific and management uncertainty as primary reasons why overfishing was still occurring in about 20 percent of U.S. fisheries in 2008. Specifically, those reasons included:

1. Setting optimum yield too close to maximum sustainable yield;

2. Failure to consider all sources of fishing mortality;

3. Failure to adequately consider the uncertainty in the reference points provided by stock assessments; and

4. Failure to consider the uncertainty in management control of the actual catch.

The use of these terms also aligns with the Magnuson-Stevens Act's National Standard 6, which states that "conservation and management measure within a fishery management plan shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches." The National Standard 6 Guidelines (published in 1996) specifically mention that lack of scientific knowledge about the condition of a stock could be a reason to reduce optimum yield, which is consistent with the concept of reducing Acceptable Biological Catch from an overfishing limit to account for scientific uncertainty in knowing the true overfishing limit.

Question 5. What is the NOAA's plan for oversight of the science and statistical committees with regards to membership, conflicts of interest, and guidelines for addressing scientific uncertainty in 2011?

Answer. NMFS published regulations addressing the membership and conflict of interest of the Councils' Scientific and Statistical Committees on September 27, 2010. The regulations provide requirements for the establishment of the Scientific and Statistical Committees, and these requirements need to be reflected in the Councils' Statements of Organization, Practices, and Procedures. Regulations also were established for financial disclosure of Scientific and Statistical Committee members. These regulations require Scientific and Statistical Committee members to submit financial disclosure reports annually and the NMFS Regional Offices to retain financial disclosure forms for Scientific and Statistical Committee members as reference when conflict of interest questions arise. NMFS annually submits a report to Congress on Disclosure of Financial Interest and Recusal Requirements for both Council members and Scientific and Statistical Committee members detailing financial disclosure or recusal issues occurring during the year. NMFS submitted the 2010 report on March 23, 2011. NMFS will continue to monitor the Councils and their Scientific and Statistical Committees to ensure they meet the requirements of the Magnuson-Stevens Act and these regulations and to report any discrepancies in the annual report to Congress.

With regard to guidelines for addressing scientific uncertainty, NMFS's National Standard 1 Guidelines provide general guidance for addressing scientific uncertainty and on the responsibilities of the Councils and Scientific and Statistical Committees when developing Acceptable Biological Catch control rules (*i.e.,* accounting for scientific uncertainty). The Councils' role is to provide the Scientific and Statistical Committees with a risk policy for developing Acceptable Biological Catch control rules, while the Scientific and Statistical Committees are responsible for reviewing the best available scientific information and creating a control rule that meets the requirements of its Council's risk policy. NMFS has been very active in providing the Scientific and Statistical Committees with guidance at Scientific and Statistical Committee and Council meetings since 2009 when the revised Guidelines were published.

Additionally, over the last 3 years, NMFS scientists have published (or have in press) eight peer reviewed articles providing fisheries scientists with technical approaches to addressing scientific uncertainty. These articles range from highly quantitative probability based methods for data-rich species to semi-quantitative index based methods for data-poor species (citations listed below).

Brooks. E. N., J. Powers, and E. Cortes. 2010. Analytical reference points for age-structured models: application to data-poor fisheries. ICES J. Mar. Sci. 67:165–175.

Field, J., J. Cope, and M. Key. In press. A descriptive example of applying vulnerability evaluation criteria to California nearshore species. Proceedings from the data-poor fisheries workshop; Berkeley, CA, Dec. 2008. Southwest Fisheries Science Center, Santa Cruz, CA.

Linton, B. C. and J. R. Bence. 2008. Evaluating methods for estimating process and observation error variances in statistical catch-at-age analysis. Fisheries Research 94(1):26–35.

Patrick, W. S., P. Spencer, J. Link, J. Cope, J. Field, D. Kobayashi, P. Lawson, T. Gedamke, E. Cortes, O. Ormseth, K. Bigelow, and W. Olverholtz. 2010. Using productivity and susceptibility of Unites States fish stocks to overfishing. Fish. Bull. 108:305–322.

Punt, A. E., M. W. Dorn, and M. A. Haltuch. 2008. Evaluation of threshold management strategies for groundfish off the U.S. west coast. Fish. Res. 94:251–266.

Ralson, S., A. Punt, O. Hamel, J. DeVore, and R. Conser. 2011. A meta-analytic approach to quantifying scientific uncertainty in stock assessments. Fish. Bull. 109:217–231.

Shertzer, K. W., M. H. Prager, and E. H. Williams. 2008. A probability-based approach to setting annual catch levels. Fishery Bulletin 106:225–232.

Shertzer, K. W., M. H. Prager, and E. H. Williams. 2010. Probabilistic approaches to setting acceptable biological catch and annual catch targets: Reconciling methodology with National Standards Guidelines. Marine and Coastal Fisheries 2:451–458.

Lastly, since 2008, NMFS has sponsored annual meetings at which representatives of all eight of the Scientific and Statistical Committees met collectively with

one another to build capacity and exchange ideas for addressing scientific uncertainty. The overarching themes from these meetings were: develop best practices (2008); establish a scientific basis for Annual Catch Limits (2009); and Acceptable Biological Catch control rule implementation and peer review procedures (2010). Currently, the Scientific and Statistical Committees and NMFS are planning a fourth meeting for September 2011.

Question 6. Can the National Marine Fisheries Service comply with the requirements and timelines for all species or species groupings based on recent and complete data as required by the Magnuson-Stevens Act? In other words, does the agency have the scientific output capability to meet the new requirements of this Act without undue reliance on the precautionary approach?

Answer. NMFS is working diligently to comply with the Magnuson-Stevens Act deadlines for establishing Annual Catch Limits and accountability measures in all U.S. fisheries by 2011. However, for both data-rich and data-limited stocks, there will always be uncertainty surrounding the status of a stock (*i.e.,* scientific uncertainty) and uncertainty in the ability of managers to either constrain catch so the Annual Catch Limit is not exceeded or in quantifying the true catch amounts (*i.e.,* management uncertainty). Therefore, some degree of precaution is warranted. The National Standard 1 Guidelines allow for flexibility in establishing Annual Catch Limits to address situations with data-limited stocks, such as the use of stock complexes, indicator stocks, and multi-year measures.

To ensure that precaution is not overly restrictive, NMFS is actively working with the Councils and Scientific and Statistical Committees to enhance guidance on developing control rules for specifying Acceptable Biological Catch; to create new methodologies for determining the status of data-limited stocks; and to prioritize the data collection of at-risk data limited stocks (*e.g.,* highly vulnerable to becoming overfished) so that even the most basic semi-quantitative or quantitative stock assessments can be performed in the near future (3 to 5 years). NMFS is also exploring ways to further improve data collection through cooperative research with fishermen and experimental fisheries.

Question 7. Is NMFS in a situation where demands for information have intensified but overall capabilities have fallen behind?

Answer. NMFS has been able to increase its stock assessment and fishery monitoring capabilities and to apply assessments to more stocks due to recent increases in our stock assessment program (*i.e.,* through FY 2010), but not at a rapid enough rate to meet new expectations. Unfortunately, reductions in days-at-sea on NOAA vessels has resulted in a number of fishery surveys being canceled. It is critical for NMFS to achieve its stated goals in setting Annual Catch Limits that requested funding for research is received. Without additional funds, as requested in the President's FY 2012 Budget, NMFS will fall farther behind in meeting demands from constituents.

There are three factors that led to increased demands:

a. The Magnuson-Stevens Act now requires Annual Catch Limits in all fisheries. This new requirement has created a demand for scientific methods that can provide baselines even in data-poor situations, has increased the demand for full assessments for more stocks, and more frequent updating of these assessments.

b. The National Standard 1 Guidelines recognize and advise that scientific and management uncertainty needs to be taken into account when recommending catch targets that safely avoid exceeding the catch limit. Calculation of the chance that a catch target will exceed the imperfectly known catch limit increases the technical requirements for stock assessment statistical models. Methods have been developed and published by NMFS scientists, but application of these methods across the wide range of data availability remains a significant challenge.

c. The peer review systems now in use throughout all the regions have improved the quality of the scientific products and the transparency with which they are communicated to the public. However, these improvements come at the cost of increased time to conduct the analyses and to provide more complete documentation. NMFS and the Regional Fishery Management Councils are working on protocols to conduct more assessments as streamlined updates, while focusing the in-depth peer reviews on new methods and first-time assessments.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN F. KERRY TO ERIC C. SCHWAAB

Question 1. In your testimony, you discussed the goals of Magnuson to create a highly participatory, bottom up management structure through the Regional Councils. During my recent trip to New Bedford, I again heard concerns about the Council, its inefficiencies, and its inability to adequately represent the concerns of many fishermen and industry stakeholders. In December 2009, John Pappalardo, Chairman of the New England Fishery Management Council, sent a letter to Secretary Locke that discussed the additional demands placed on the New England Council, the Northeast Regional Office, and the Northeast Science Center as a result of the 2007 reauthorization of the Magnuson-Stevens Act. Specifically, he requested a comprehensive system analysis and efficiency review of the three institutions to provide a blueprint for reform of the three institutions. What actions have been taken in response to Mr. Pappalardo's request?

Answer. Last September, Assistant Administrator Eric Schwaab announced his plan to conduct a regional assessment of the fishery management process in New England. Every organization, no matter how large or how well run, can benefit from constructive guidance as to how it could improve its processes because they want to ensure they do not miss opportunities to perform better. NMFS contracted with Preston Pate to oversee this process and Touchstone Consulting Group to work with Mr. Pate on this effort. On Tuesday, April 26, 2011, Eric Schwaab and Preston Pate provided a summary to the New England Fishery Management Council of Phase I of the agency's Management Review of fisheries in the Northeast, which focused on the relationships among the Council, NMFS' Northeast Regional Office and the Northeast Fisheries Science Center, and factors that affect the effectiveness of the three entities to carry out their responsibilities under fisheries law. NMFS will take short term and long term actions in response to the report.

In the short-term, NMFS will work to improve collaboration with partners on science, cooperative research with industry and reviews of science programs. Especially in this budget climate, it is critical that the science conducted by the Northeast Fisheries Science Center and partner research institutions is done in a more collaborative manner and in ways that maximize involvement of fishermen in the findings. We will work and plan together with research and academic institutions and fishermen to make the best use of limited research funding to answer some of the critical questions facing New England fisheries. We will immediately initiate an expedited mid-term review of the 2009 strategic plan for cooperative research in a way that involves all regional cooperating agencies and academic institutions. The results will be incorporated into FY12 research funding prioritization decisions.

Next, we will work to improve our communications efforts. Specifically, in the Northeast we will consolidate our communications staff under one program and coordinate them under one communications plan. We will build on recent efforts like the Navigator now found in Commercial Fisheries News to simplify the way we explain the actions we are taking and how they impact industry. We will also build on our efforts to communicate directly with industry through programs like the pilot Fisheries Information Centers, bi-weekly calls with the sector managers, and our new compliance liaison in New England.

We will also clarify roles and responsibilities of our Regional Office, Science Center and Council. This has both short-term and long-term implications. We will immediately update the Regional Office and Science Center operating agreement in light of the report recommendations. In addition, through the Northeast Region Coordinating Council (made up of the region's fisheries executives from the New England and Mid-Atlantic councils, the Atlantic States Marine Fisheries Commission, NOAA's Northeast regional administrator and Northeast Fisheries Science Center director) we will renew our efforts to clarify NOAA and council functions and specific staff roles through new operating agreements. More importantly, subject to additional feedback from the Fishery Management Council and other interested participants, we envision this to be a particular area of focus for phase II of the review.

We will also improve data management systems. We will integrate and consolidate our fishery dependent reporting/collection systems and the underlying data management systems in the region. To improve the timeliness and accuracy of fisherman reported data and simplify industry reporting requirements, our Regional Office and Science Center have been working with the industry to transition from paper to electronic logbooks. This will speed processing of data, reduce errors in the data and relieve the industry of having to obtain, carry and fill out paper logbooks. The program will be available initially on a voluntary basis to vessels in multispecies sectors. While these are immediate steps we will take, some of the recommenda-

tions in the reports will require much more thought and analysis. The Council will also need time to review the findings and consider next steps.

The report and related documents can be found at the following web address: *www.nmfs.noaa.gov/publicreview/new__england__phase1/index.htm*.

Question 2. What efforts are underway at NMFS to facilitate a more effective, representative approach to fishery management in New England through the Council process?

Answer. Phase I of the New England Assessment and Management Review contains several recommendations to help ensure that the Council process is effective. For example, the Review recommends simplifying governance by clarifying expectations, roles and responsibilities of the various NOAA offices and the Council. It also recommends exploring ways to eliminate unnecessarily redundant programs, activities, and resources among these groups at key hand-off points. It recommends redesigning key engagements to be more collaborative and communications to better meet stakeholders' needs. NMFS will take immediate steps to address these recommendations and we expect the Council to be full partners in this effort after they have had time to review the findings and consider next steps.

The Management Review complimented the fisheries management process for being transparent and noted that overall constituent interaction with the process as good; however, NMFS is committed to building on and improving it.

Question 3. As you know, the Governor of Massachusetts' request for direct economic relief was denied by the Secretary. However, he was informed that NMFS is prepared to work with the Massachusetts Division of Marine Fisheries (DMF) to more finely analyze necessary data regarding fishermen and communities specifically in need of targeted assistance. To date, this effort remains hindered by the DMF's lack of access to quota transfer data that is critical to answering consolidation and excessive share questions in the fishery as a result of catch shares and low catch levels. The DMF has requested access to the data submitted by the sectors to National Marine Fisheries Service (NMFS). Recently, I handed Secretary Locke and Administrator Lubchenco letters urging them to grant the DMF's request. Transparency and the sharing of all data is critical to fully understand and address issues of consolidation and excessive shares in the fishery. Where does the Division of Marine Fisheries request for sector data stand?

Answer. The Commonwealth of Massachusetts and NMFS have had a Memorandum of Understanding in place that provides the Commonwealth with access to Northeast region data bases since 1991. Through this, the Commonwealth has had access to most of the region's data bases. This access has recently been expanded and the Commonwealth of Massachusetts now has access to all of the region's multispecies related data bases including quota transfer data.

Question 4. In what ways is NMFS currently working with the DMF to provide targeted assistance for Massachusetts fishermen and communities?

Answer. NOAA has formed a team comprised of people from NMFS and the Massachusetts Division of Marine Fisheries to further analyze the economic data from the first year of the sector management program. This will allow us to better understand if and where more targeted assistance may be needed.

Additionally, NMFS committed over $47 million in Fiscal Years 2009 and 2010 to ease the transition to sector management including paying for required dockside and at-sea monitoring and providing funding for state permit banks to help small boat fishermen stay competitive in the fishery.

The Department of Commerce also deployed Economic Development and Assessment Teams to six Northeast fishing ports, which will provide customized technical assistance for impacted fishing communities. The teams will work with community leaders, regional planning organizations, and economic development organizations to explore issues ranging from infrastructure challenges to development and financing needs, to look at the total economic picture for each community.

Question 5. While NOAA data from fishing year 2010 shows that revenues are comparable (or in some cases greater) to the levels observed for this time period last year, aggregating the data masks significant economic impacts occurring at local levels. Success in the Massachusetts fisheries cannot be measured solely in terms of revenues without taking costs into consideration. Net revenues have been drastically reduced for much of the fleet as the costs of leasing quota (renting fish allocation) have become the highest percentage of fishing expenses of any expense realized in the past. There has been a distinct shift of revenues from the bottom 90 percent of the fleet to the top 10 percent of the fleet mainly due to an allocation schematic that left many of the fishermen with woefully small allocations making them unable to fish or afford to lease quota that would enable them to fish. What is the Agency's estimate of the revenue necessary for vessels in sectors to break even?

Answer. Economic break-even analysis for vessel-operation requires analysis of the multiple classes, sizes and groups of fishing vessels operating in a fishery. The data that NMFS' Northeast Fisheries Science Center needs to evaluate the break-even cost for vessels includes:

1. Fishery vessel fixed costs based on dockside surveys;
2. Fishing vessel operating costs on a sample of trips; and
3. Vessel-specific data from Sector Managers and NOAA data bases related to the cost of sector operations as well as the cost of Annual Catch Entitlement trading.

Much of these data is not currently available but will be available in Fall of 2011. NOAA expects to use these data to calculate break-even costs for various vessels classes as part of its year-end economic report for the Northeast Multispecies fishery. NMFS staff will develop this analysis cooperatively with Dr. Dan Georgianna from the University of Massachusetts, Dartmouth's School for Marine Science and Technology, and provide the analysis by October 2011.

Question 6. How many vessels in sectors have reached these break even points? How many do you expect will fall short?

Answer. The best measure of economic performance would be reliable estimates of vessel-level profits. Vessel-specific revenue estimates (developed from dealer data) coupled with vessel operating costs will allow us to calculate profits as well as the number of vessels that have reached (or exceeded) their break-even points. Those data are not completely available to NMFS at this time. NMFS expects to report on that in more detail in our annual report, which will be released in the fall of 2011.

Question 7. What has the effect been on the crew of fishing vessels and on the shore-side support structure such as ship chandlers, gear suppliers, and ice houses?

Answer.

Effects on Crew

We use two measures to assess the effects on crew (Table 1). The number of crew positions, measured by summing the average crew size of all active vessels, is an indicator of the availability of crew jobs, while the total number of crew trips, calculated by summing the crew size of all trips, provides a measure of the number of separate opportunities for crew to earn a share of landing revenues. Comparing the first 9 months of the 2009 Fishing Year to the same period in FY 2010 we find that crew jobs declined by 10 percent (125 positions) and the total number of crew-trips declined by over 15 percent (8,428 trips).

We expect to report on this in more detail in our annual report which will be released in fall of 2011. NMFS Northeast Fisheries Science Center has commissioned a study on crew that is due mid-Summer 2011 and is also planning to conduct a major crew survey in the Fall of 2011. Both of these studies should shed further light on the changing social and economic circumstances of crew in New England and Massachusetts.

Table 1.—Changes in Employment Indicators by Home Port State
(all trips)

	2007	2008	2009	2010
Total Crew Positions	1,388	1,304	1,253	1,128
Total Crew-Trips	57,555	54,071	55,015	46,587

*First nine-months of each fishing year.

Effects on Shore-side Support Structures

NMFS can currently only surmise the changing circumstances of shore-side support businesses based on the number and duration of fishing trips. Both of these measures provide an indication of the changing demand for inputs required to fish—such as fuel, ice and other gear—that are provided by shore-side businesses. For that reason, a significant increase or decrease in numbers of trips and days absent may also be indicative of changing circumstances of shore-side businesses.

The first 9 months of the 2010 Fishing Year demonstrate a 19 percent drop in overall trips by groundfish vessels that declared a home port in Massachusetts in comparison to 2009; this was despite the continued increase in trips by groundfish vessels which focused on non-groundfish species like scallops and monkfish (Table 2). Similarly, there was an overall 22 percent decline in fishing trip duration (in days) during the same period (Table 2). The decline in total trips by groundfish vessels means that the demand for purchased inputs and services from shore-side busi-

nesses supplying groundfish trips has gone down and that shore-side businesses may be experiencing some additional economic pressure in 2010. However, it is important to take into account that shore-side marine businesses do not depend only on groundfish-permitted vessels (*i.e.,* most of the value in Massachusetts marine fisheries is not in the groundfish sector) and we have not done an analysis of number and duration of trips for all fleets. Furthermore, our analyses of the Massachusetts groundfish fleet show an increase in revenues and improved economic performance in terms of revenue per unit effort in 2010 in comparison to 2009. Increased efficiency and profitability can shift revenues away from shore-side businesses and the fishing economy in general into other commercial sectors of the local/regional economy. NMFS hopes to be able to provide better information on shore-side businesses performance trends through analyses that will be conducted this summer.

Table 2. Mass Trips and Fishing Trip Duration (in days) by Home Port State *

	2007	2008	2009	2010
Groundfish trips	13,002	13,617	13,959	8,320
Fishing trip duration on groundfish trips	12,431	12,753	12,060	9,252
Non-groundfish trips **	12,409	12,908	13,702	14,159
Fishing trip duration on non-groundfish trips	9,803	9,219	10,361	9,866

*First 9 months of each fishing year
**Trips made by groundfish permitted vessels that focused on non-groundfish species

Question 8. What are the projected employment losses or gains due to the sector management system in Massachusetts?

Answer. NMFS expects to report on this in more detail in our annual report, which will be released in the fall of 2011. NOAA will develop a year-end economic report for the Northeast Multispecies fishery to help answer these questions. Annual Catch Limits for twelve of twenty groundfish stocks will increase in FY 2011 suggesting that there will be an increase in fishing activity in 2011, which should result in an increase in groundfish fishery-related employment. Moreover, as stocks continue to rebuild and Annual Catch Limits are increased, we anticipate that other employment indicators will also increase.

Question 9. Why did NMFS not perform socioeconomic analyses of impacts on individual fishermen of the shift from many years of days-at-sea management to hard-quota management coupled with the new approach of direct allocations to individual fishermen who joined groundfish sectors?

Answer. NMFS routinely performs analysis of the social and economic impacts of all proposed management actions in compliance with the Magnuson-Stevens Act, the National Environmental Policy Act, E.O. 12866, and the Regulatory Flexibility Act. Amendment 16's Environmental Impact Statement included detailed economic analysis of the sector allocation alternatives as well as the economic impacts of the proposed common pool measures (see *http://www.nefmc.org/nemulti/planamen/Amend16/final_amend16_oct09.html*). Analysis of the impacts on individual vessels of the sector allocation alternatives were summarized by home port state, vessel size, and preliminary sector rosters. Anticipated economic impacts on individual vessels of the common pool measures were summarized by home port state, home port groups, vessel length, gear, and dependence on groundfish. Given uncertainties over potential sector operations plans and rosters, these quantitative analyses were supplemented by qualitative assessments of economic and social impacts. Estimated economic and social impacts were also assessed as part of the Environmental Assessment for Framework 44 *(http://www.nefmc.org/nemulti/index.html*). These analyses included estimated potential revenues associated with the 2010 Annual Catch Limits as well as economic impacts on individual vessels of the proposed changes to the common pool measures. Economic impacts on individuals that had elected to join a sector were assessed in the accompanying Environmental Assessment to the proposed and final rules implementing sectors for the 2010 Fishing Year.

Question 10. When will those analyses be done and how will NMFS use those results to correct problems and alleviate the impact of Amendment 16 regulations on fishermen and their families?

Answer. NMFS expects to report on this in more detail in our annual report, which will be released in the fall of 2011. Additional analyses will be provided as part of the annual report for the Northeast Multispecies fishery, expected to be completed in fall 2011. NMFS will provide these analyses to the New England Fishery Management Council to facilitate its ongoing review of the realized impacts of sector management in 2011. NMFS will work with the Council to identify what issues, if any, need to be addressed to more effectively achieve the objectives of the fishery

management plan and applicable law. Once those issues are identified, NMFS will assist in the development, analysis, and implementation of any remedies that may be developed by the Council. One of the issues that will be analyzed is any consolidation of active fishing effort onto fewer vessels. NMFS is already working closely with the Council to identify the scale and nature of consolidation that has occurred in the fishery since 1994, and what measures may be necessary to prevent further consolidation, if warranted, as part of Amendment 18 to the Northeast Multispecies Fishery Management Plan.

Question 11. The Massachusetts Fisheries Institute (MFI) Report submitted by the Governor to Secretary Locke concludes that consolidation is occurring in the fleet. Amendment 16 has no provision to prevent permit or quota consolidation into the hands of a few to prevent excessive shares. Updated MFI analyses reveal that shares going to the top 10 percent of vessels' proportion of total revenue shifted significantly in 2010 from an average of 50 percent to almost 60 percent. Likewise the share going to the bottom 90 percent shifted down from 50 percent to about 40 percent. While it is my understanding that the Council is working to address the consolidation issue, what actions is NMFS taking to support this effort and what can be done to prevent the worsening of the shift in shares and concentration of fisheries wealth?

Answer. NMFS is working to provide the New England Fishery Management Council with adequate information to make these important policy recommendations regarding consolidation. Various analyses have either been completed or are planned that will be directly relevant to the issue of consolidation. For example, NMFS has done an analysis of the performance of the fishery under sectors that looks at the first 3 quarters of fishing year 2010. This report contains data on recent trends of landings, revenue, number of active vessels, and the distribution of revenue among active vessels that will help answer questions about the distribution of catch among vessels, as well as the economic health of the fishery and its components.

In 2009, NMFS initiated a project to compile information on vessel ownership that will provide new insights on the control of multiple vessels by individuals (or corporations). The NMFS' Northeast Fisheries Science Center is planning additional analyses to analyze the full fishing year (May 2010 through April 2011) that will include data on vessel profitability. In addition, NMFS's staff have been active participants on the Council's Plan Development Team, which drafted a white paper on the subject of consolidation.

The Council recently requested that NMFS implement a control date of April 7, 2011 to start the regulatory process of addressing consolidation. This control date is intended to discourage speculative behavior in the market for fishing privileges, and may serve as a reference date for future management measures that may be developed to limit the accumulation of fishing privileges. The control date alerts the fishing industry and the public that any present or future accumulation of fishing privileges may be limited or may not be allowed after or prior to the published control date. If it chooses, the Council could set specific limits on the amount of fishing privileges (*e.g.,* permits, or days-at-sea, quota) that an individual or sector may control.

Question 12. What is your expectation for overages by sectors for individual species ACE?

Answer. Sectors managers and NMFS are monitoring each sector's allocation on a daily basis. Currently, it does not appear that sectors will exceed their annual catch entitlement for individual stocks. If an overage does occur, sectors can acquire additional quota up to a month after the end of the 2010 fishing year to allow a "balancing of the books." In subsequent years, sectors will have 2 weeks after the end of the fishing year to trade allocations. Consequently, NMFS does not expect sector overages to occur.

Question 13. What is the Agency's plan for accountability measures if overages occur?

Answer. Amendment 16 regulations require that within season, sector vessels must cease fishing in a particular stock area if the sector exceeds its allocation of a groundfish stock in that particular stock area. Any overages of a sector's annual catch entitlement that remain after sectors have had a chance to balance their allocation at the end of the year, will be deducted from that sector's allocation during the subsequent fishing year.

Question 14. What percentage of the total ACLs does the Agency expect sectors to land this fishing year?

Answer. Table 3 compares projected landings and catch (landings plus discards) to the total sector sub-Annual Catch Limits. The preliminary cumulative sector data

presented in this table are based on data received as of May 20, 2011. Based on these preliminary catch and landing totals, overages are not currently anticipated for the sectors in aggregate.

Table 3. Expected [1] Sector Landings and Catch (mt), End of FY 2010 (May 1–April 30)

Stock	Sum of Sector Sub-ACL (mt)	Landings [1] (mt)	Landings,% of Sub-ACL (%)	Catch: [1] Landings + Discards (mt)	Catch, % of Sub-ACL (%)
Georges Bank Cod	3,302	2,733	82.8	2,858	86.6
Gulf of Maine Cod	4,327	3,595	83.1	3,677	85.0
Plaice	2,748	1,364	49.6	1,542	56.1
Georges Bank Winter Flounder	1,823	1,361	74.7	1,379	75.6
Gulf of Maine Winter Flounder	133	83	62.5	85	63.7
Witch Flounder	827	660	79.8	720	87.0
Cape Cod/Gulf of Maine Yellowtail Flounder	729	591	81.1	653	89.6
Georges Bank/Yellowtail Flounder	803	652	81.2	720	89.6
Southern New England/Mid-Atlantic/ Yellowtail Flounder	235	184	78.1	188	80.2
Georges Bank Haddock	40,186	8,245	20.5	8,287	20.6
Gulf of Maine Haddock	799	399	49.9	401	50.2
White Hake	2,505	2,250	89.8	2,283	91.1
Pollock	16,178	5,520	34.1	5,601	34.6
Redfish	6,756	2,007	29.7	2,164	32.0
Southern New England/ Mid-Atlantic/ Winter Flounder	—	12	—	50	—
Northern Windowpane	—	1	—	159	—
Southern Windowpane	—	<1	—	55	—
Ocean Pout	—	<1	—	59	—
Halibut	—	6	—	27	—
Wolffish	—	<1	—	20	—
Total (allocated stocks)	*81,351*	29,644	*36.4*	*30,558*	*37.6*
[1] *Preliminary, as of May 20, 2011*					
Source: NMFS Northeast Regional Office		Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in Lieu of missing reports) based on vessel histories.			
These dates are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealer via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the data base.					

Question 15. Do you expect an improvement in the percentage of the ACLs landed by sector vessels in 2010 over 2009?

Answer. Yes, we do expect an improvement in the percentage of the Annual Catch Limits landed by sector vessels in 2010 over 2009. Prior to the implementation of Amendment 16, the Northeast Multispecies fishery was managed primarily by input controls, which restricted the number of days-at-sea fishermen could fish each year. There was limited individual incentive to selectively fish and flexibility afforded to fishermen was limited by the days-at-sea system. In the multispecies fishery, the sector system provides fishermen much more flexibility and incentives to more fully exploit healthier stocks and avoid catching weaker, more limiting stocks. This should result, over time, in higher capture of available quota.

Question 16. I have been informed by NMFS and NOAA that we will have a better idea of how sectors are working in Massachusetts at the end of the fishing season after all that relevant data has been collected and analyzed. However, for some fishermen, this may be too late. Fishermen are feeling the impacts of the new management plan now. Some appear to be faring well, but others have been already been driven out of the fishing industry and many more feel they cannot survive until the end of the fishing year. What can be done to provide more timely data throughout the fishing season so major issues can start to be addressed before the end of the fishing year?

Answer. Electronic reporting by fishing vessels will substantially improve the timeliness of fishing reports and the quality of the data being provided. This, coupled with electronic reporting by seafood dealers, which was implemented in 2003, will improve the timeliness of reports on the status of landings throughout the year. Agency staff and independent developers have built several reporting applications for use onboard fishing vessels. NMFS anticipates that these systems will be available to interested fishermen this summer. NMFS' Northeast Regional Office has

also been working closely with individual sector managers to identify missing reports, incorrect reports and data errors.

NMFS' staff have also concentrated work on improving the completeness and accuracy of landings information provided by seafood dealers, as these reports provide the definitive data on landings throughout the region.

More complete, accurate, and timely data will minimize fluctuations in catch estimates and reduce uncertainty with respect to the amount of groundfish landed for each sector, enabling sector managers and participants to more effectively plan fishing operations throughout the year. In addition, this will facilitate trading of sector quota by enabling sectors to more precisely evaluate their need for additional quota based on catch rates of participating vessels. Throughout 2010, NMFS has strived to incorporate the most updated data in all facets of monitoring, including increasing pollock quotas mid-year to reflect updated stock status, integrating more precise gear-specific discard data once available, and approving additional sector exemptions from existing regulations. NMFS will continue such efforts in FY 2011, as appropriate, to maximize fishing opportunities for participating sector vessels.

Question 17 While I appreciate efforts by NOAA and the Department of Commerce to address the Asset Forfeiture Fund to date, more needs to be done to restore trust and credibility between fishermen and the agencies as a result of past abuses highlighted in the Inspector General's reports. Why has there not been an opportunity for fishermen who did not initially submit their cases to the Inspector General for fear of retaliation to bring their cases forward as requested by the Massachusetts delegation?

Answer. On March 16, 2011, Secretary Locke announced that fishermen and businesses would have until May 6, 2011, to submit new complaints about potentially excessive enforcement penalties to the Special Master for review, as well as request stays of their penalties as part of the complaint process. This is part of a series of ongoing improvements to NOAA's Law Enforcement programs and responds to calls to allow fishermen who did not initially submit their cases to do so.

To have been eligible, the Notice of Violation and Assessment (NOVA) must have been issued on or after March 17, 1994; settled or otherwise resolved before February 3, 2010; and a civil penalty must have been paid. In addition, the person making the complaint must certify the alleged facts are true. Cases are not eligible for review if they were decided by a Federal district court judge, or are currently pending before for an Administrative Law Judge or the NOAA Administrator. The Special Master will review cases that meet the criteria and make recommendations to Secretary Locke regarding whether the civil penalties imposed and paid in those cases should be remitted or modified.

Question 18. Why have the penalties associated with the cases currently being reviewed by the Special Master not been stayed until the review is complete as requested?

Answer. On March 16, 2011, Secretary Locke announced that fishermen can request that the Special Master recommend whether payment of penalties should be stayed while their case is under review. In addition, Secretary Locke has stayed the current penalty obligations of those complainants whose cases have been under review and had requested a stay.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. AMY KLOBUCHAR TO ERIC C. SCHWAAB

Question 1. In the last Congress, I was a co-sponsor of Senator Lieberman's Fish Habitat Conservation Act which was supported by the American Sportfishing Association, the Congressional Sportsmen's Foundation Trout Unlimited, and others. This bill authorizes funding to encourage collaborative regional conservation efforts that bring together Federal Government agencies, state and local governments, nongovernmental organizations, fishing industry groups, private land owners, stakeholders and businesses. Can you discuss how this legislation would complement the conservation provisions of the Magnuson-Stevens Act?

Answer. The Magnuson-Stevens Act and the National Fish Habitat Action Plan offer complementary approaches toward the shared vision of productive fish populations supported by healthy habitats. The National Fish Habitat Action Plan is an existing, state-Federal effort focused on protecting and restoring fish habitat throughout the range of keystone species, supported by approximately $7 million in direct appropriations to the U.S. Department of the Interior and for regional partnerships, and leveraged with significant resources from states and private sector partners. NOAA has been a committed partner in the implementation of the National Fish Habitat Action Plan to achieve its ambitious goals, including a scientific

assessment of all of the Nation's fish habitats, the identification of priority habitats, and the establishment of regional Fish Habitat Partnerships to protect and restore those priority habitats. The goals and principles of the National Fish Habitat Action Plan align with NOAA's vision to use a science-based, ecosystem approach to natural resource management.

The Fish Habitat Conservation Act would codify the National Fish Habitat Action Plan's early success and ease efforts to connect National Fish Habitat Action Plan activities with other natural resource programs. NMFS' Magnuson-Stevens Act mandate offers a solid companion to the National Fish Habitat Action Plan model, based on 35 years managing marine fish stocks. The Magnuson-Stevens Act's marine emphasis provides a logical connection along the Nation's coasts, where National Fish Habitat Action Plan programs transition into coastal watersheds, and extend to include river species outside Regional Fishery Management Council jurisdiction. Together, the National Fish Habitat Action Plan's focus on fish habitat and the Magnuson-Steven Act's mandate to conserve essential fish habitat and restore habitat through the Community-based Restoration Program will combine to provide NMFS and its partners with stronger tools to increase ecosystem benefits from these valuable resources.

Question 2. As the Chair of the Subcommittee on Competitiveness, Innovation, and Export Promotion, one of the things we're taking a look at is how we can compete with other countries to attract more foreign visitors in the U.S. Has there been an examination of how changes in fishing stocks correlate to tourism activity?

Answer. NMFS has insufficient data and models to relate tourism activity to fish stocks. However, there are academic studies on this topic that can provide general guidance to states and communities. The only recreational activity NMFS routinely monitors is saltwater recreational fishing. While the Marine Recreational Information Program survey effort does collect information on whether the interviewed angler is a foreign visitor, it is not possible to post-stratify the survey results to then estimate the total number of foreign visitors. To correlate fishing stocks with recreational fishing activities, a necessary piece of information is an estimate of total foreign visitors who go recreational fishing. NMFS does not have this information.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARIA CANTWELL TO ERIC C. SCHWAAB

Question 1. I know that catch shares have been extremely controversial along the east coast, but we've had a fair amount of success with them in the Washington and Alaska fishing industries. Are catch shares a panacea for all problems in fisheries management?

Answer. No. To manage fisheries in Federal waters, the Magnuson-Stevens Act sets up a unique and highly participatory structure through eight Regional Fishery Management Councils. The Councils actively consider a variety of management tools in determining how to manage the fisheries in their respective regions. Catch share programs are only one of many fisheries management tools that Councils may choose to utilize. Catch shares programs are not required and are not appropriate for every fishery.

The specific goal(s) that Councils are trying to achieve will help determine whether a catch share program is appropriate for a specific fishery. Goals may include improving safety for fishermen by eliminating "race-to-fish" conditions; increasing fishery stability and economic viability; rebuilding an overfished stock; ensuring participation from new entrants; and protecting communities from possible economic impacts by anchoring quota with them. Catch shares are an extremely dynamic and flexible tool and, when properly designed, can better ensure sustainable fisheries. We have seen Councils take a wide variety of approaches in the design of catch share programs to address a variety of biological, economic, and social objectives.

Question 2. In what ways are they helpful tools and what are some of their limitations?

Answer. The Councils have great latitude to design catch share programs to achieve a wide variety of management objectives. Catch share programs can be, and have been, designed to address issues of concern to smaller owner-operated vessels, for example, by establishing consolidation and ownership limits, establishing set-asides of quotas for particular fleets or ports, and providing assistance in the form of permit banks and loan programs to assist small entities and new entrants to a fishery consistent with the Council's objectives. Under a catch share program, a vessel owner has more flexibility to operate in a way that maximizes their efficiency and profit. The potential economic benefits of catch share programs can be particularly valuable to smaller operations. In the past, small vessels/businesses had to

compete with larger operations, but under a catch share program, how and when they fish is largely within their individual control, as long as consistent with the fishery regulations.

Catch share programs can be designed to minimize impacts on fishing communities that include smaller fishing operations and promote community sustainability. The Councils have the tools to develop programs that help communities by taking advantage of Magnuson-Stevens Act provisions under Section 303A to designate Fishing Communities and Regional Fishery Associations. These types of entities can be flexibly developed (*e.g.,* a specific port, group of ports or communities, a group of fishermen using the same gear type, or other grouping), while at the same time providing a structure and framework for anchoring quota with a particular community. NOAA can provide support and technical advice on designating Fishing Communities and Regional Fishery Associations, and encourage partnerships for community capacity building, which can be a tool for "mom and pop" operations to successfully and sustainably build and maintain their business.

Impacts to participants, including smaller operators, vary across programs, but have generally been positive. Benefits include increased ex-vessel prices of fish, increased landings, increased value of harvesting privileges, increased season length, reductions in bycatch and improved safety. Accurate monitoring of quota that is essential for catch share programs also improves the quality and quantity of fishery data, which leads to reduced scientific uncertainty and potential for increased catch quotas.

At the same time, these programs can result in increased cost for the purchase of new shares. Larger operations may have better access to capital which can give them an opportunity to purchase more (or additional) quota or upgrade vessels more easily than a small operator; however, that is true regardless of whether the fishery management regime is a catch share program or any other management program. The Magnuson-Stevens Act allows Councils to specify NMFS' Finance Program loans to assist small operators and first time buyers of catch share privileges.

While consolidation and ownership limits can be established, consolidation can be a concern even in relatively successful programs like the sablefish and Pacific halibut longline individual fishing quota program in Alaska. It is important that NMFS and the Councils continue to monitor the biological and socioeconomic performance of all their fisheries and amend Fishery Management Plans that are not working to meet the program objectives. For limited access privilege programs, the Magnuson-Stevens Act specifies program reviews after the first 7 years of the program and every 5 years thereafter. The NOAA Catch Share Policy recommends the Councils consider similar reviews in the development of any new catch share program.

NMFS has heard concerns with respect to consolidation during the development of the NOAA Catch Share Policy and, in response, key design elements connected to consolidation such as allocations, transferability, and fishing community sustainability, are among the guiding principles in the policy. In some instances, the Councils' goal may be to reduce overcapacity, and that goal should not be precluded; however, we will work diligently with the Councils to ensure that the possible impacts of consolidation, such as lost crew positions, are considered and mitigated during the development of any catch share program.

Question 3. How can catch shares better-equip fishing fleets to deal with the economics of a fluctuating resource?

Answer. Catch shares provide vessel owners with more flexibility to operate in a way that maximizes their effectiveness and profit. Having an individual allocation of the resource, and not having to compete with others to make landings against a common quota, allows fishermen to plan their fishing efforts to best match market and weather conditions, and their individual operations, thus improving both their efficiency and safety. Catch shares also provide for opportunities for groups of fishermen to work collectively to harvest the resources more efficiently, as well as in ways that avoid catching the limiting stocks in multispecies fisheries. In times when the resource is less abundant, fishermen can work together to harvest their quota using fewer vessels, or individually by timing the market to increase profits. Transferability of catch shares, such as leasing a certain amount of quota to another fisherman, provides flexibility for fishermen in their business planning and allows them to receive income when they may not otherwise be able to (*e.g.,* their vessel is in need of repair and they cannot fish).

Question 4. Some segments of the fishing industry have called for legislation to make Magnuson-Stevens more "flexible" and point to the ten-year rebuilding requirement as an example of an arbitrary and inflexible requirement under the law. Isn't it true that the rebuilding timeframes for many fisheries greatly exceeds 10

years because the Magnuson-Stevens Act already gives managers a great deal of flexibility?

Answer. Yes. The Magnuson-Stevens Act and the National Standard 1 Guidelines provide a great deal of flexibility in rebuilding timeframes to consider the biological needs of the species, as well as the social and economic needs of fishing communities. Many rebuilding plans for overfished stocks exceed 10 years; the longest of which is 100 years. Out of 64 rebuilding plans, both past and current, 26 (41 percent) have/had rebuilding timeframes that exceed 10 years, and the average rebuilding plan time-frame was 21 years.

Question 5. At what point are we talking genuine flexibility to rebuild stocks versus weakening the bill to avoid the pain of rebuilding at all?

Answer. The Magnuson-Stevens Act currently incorporates sufficient flexibility to provide for the unique needs of specific fisheries and fishing communities, while also providing strong guidance to rebuild overfished stocks quickly to improve their health and abundance, as well as to support a sustainable fishery.

In the National Standard 1 Guidelines, NMFS recommends, that consistent with the Magnuson-Stevens Act, a target rebuilding time be set somewhere between the absolute shortest time to rebuild and the absolute longest time to rebuild, but that the longest rebuilding period should be avoided whenever possible. When developing a rebuilding plan, it is good practice for Councils to calculate the probability of achieving rebuilding by several alternative target rebuilding times, in order to inform the decision. In deciding the rebuilding timeframe, Councils must take into account the needs of the fishing community consistent with National Standard 8.

Question 6. My colleague Senator Brown has proposed legislation that would require the Fisheries Service to do a full economic analysis of each fisheries management decision. Would such a requirement pull funding away from stock assessments, fisheries surveys, and the scientific analyses that we need to do to actually manage our fisheries? If such economic analyses were ever required, do you believe they should just examine the short-term economic impacts of fishery management decisions, or should they also examine the long-term costs and benefits of those decisions?

Answer. Economic analyses on each fisheries management decision are currently conducted in accordance with the Magnuson-Stevens Act (*e.g.,* 10 National Standards), National Environmental Policy Act, Regulatory Flexibility Act, and E.O. 12866, as required by law. These analyses incorporate short-term, long-term, and cumulative impacts. NOAA and NMFS believe that identifying and evaluating both short- and long-term economic impacts of management measures is of great importance, and conducting economic analyses on each fisheries management decision has been a fundamental component of our existing management process. Guided by the Magnuson-Stevens Act, NMFS and the Regional Fishery Management Councils strive to ensure that U.S. fisheries are sustainable—economics and viable fishing communities are key components of sustainability.

While NMFS understands the desire to have more information on economic impacts of management actions to reduce economic hardships on fishermen and fishing communities, the independent economic impact statements required in S. 238 could introduce significant complexity and conflicts with existing efforts, process, and mandates. The economic impact statements called for in the bill:

- Are largely duplicative of those already required by law, yet do not require the external entity developing the impact statements to be held to the same legal requirements, including use of best available data;
- Would not be streamlined into the current fishery management process and its prescribed timelines, which puts key information in front of decision-makers during the management process;
- Do not take into account previous mitigation measures or positive impacts from past management actions, nor recognize that a short-term negative impact is sometimes needed to achieve a longer-term positive impact; and
- Conflict with the highly participatory and adaptive fishery management process that Congress created under the Magnuson-Stevens Act in 1976 and could jeopardize conservation mandates, particularly the mandate to end overfishing and rebuild stocks.

NMFS currently funds economic analyses and research to fulfill our legal mandates and to improve the science upon which fisheries management decisions are based. If the additional economic impact statements as proposed in S. 238 were also required, an outside entity would conduct these analyses and how that would be funded is unclear. The additional funding required to support those activities, which could be approximately $15–20 million per year, is likely to result in a competition

over funds necessary to manage our fisheries in accordance with the Magnuson-Stevens Act and other applicable laws.

Question 7. As you know, NMFS has recently issued several biological opinions regarding the impacts that pesticides have on ESA listed salmon on the West coast. Jeopardy findings have triggered "reasonable and prudent alternatives" that many in the agriculture industry feel are draconian, unnecessary, and irrational. In the past when various fishing fleets have been shut down due to ESA findings, NMFS has provided support by facilitating experiments to find new, alternative ways of meeting ESA mandated standards or requirements (like experiments to find gear modifications that reduce bycatch levels). Isn't it possible to view the pesticides situation through a similar lens, where the agricultural community needs assistance finding alternative ways of meeting new standards being required under the Endangered Species Act?

Answer. NOAA, the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service, and the United States Department of Agriculture's (USDA) Agriculture Research Service and Office of Pesticide Management Policy have formed an interagency working group to address pesticides registrations and Endangered Species Act (ESA) issues. The working group will call upon the expertise of the EPA and USDA to work with states and the agricultural community to minimize exposure of ESA listed species to pesticides.

Question 8. If the Federal Government helps the agricultural industry experiment to find new ways to lessen farmers' impacts on salmon, couldn't such innovations be considered for future "reasonable and prudent alternatives" in NMFS biological opinions?

Answer. Yes. Should new methods become available for minimizing risks to threatened and endangered Pacific salmon, NMFS would consider those methods as it develops any reasonable and prudent alternatives in future biological opinions, and fashions recommendations to EPA. NMFS would welcome the expertise and capabilities of other agencies and the states in fashioning effective and efficient strategies.

Question 9. Don't you think it is a laudable goal to empower farmers to help find solutions to this problem? Would a collaborative effort between farmers, NMFS, EPA, and USDA to develop and field-test a wide range of possible methods for reducing pesticide impacts on salmon be one possible way forward?

Answer. Yes. All of the agencies that participate in the interagency working group recognize the desirability of facilitating a collaborative effort to reduce pesticide impacts on ESA-listed salmon. The agencies are working to expand opportunities to participate in the consultation process to the pesticides registrants, the affected states, farming organizations and other interested parties. NMFS will solicit recommendations to improve access to scientific information, monitoring data, and other information pertinent to ESA consultation issues "up-front" in the early preparation of biological assessments by EPA, and over the course of the preparations of biological opinions by both NMFS and the U.S. Fish and Wildlife Service in the case of formal consultations.

Question 10. Rather than just focusing on the legal and scientific disputes, wouldn't it be helpful for both the government and farmers to engage in a process that is solutions-oriented, collaborative, on-the-ground, and data-driven?

Answer. Yes. NMFS is committed to increasing participation of agricultural organizations and other stakeholders in the consultation process, in both EPA's preparation of its biological assessments and in both NMFS' and the U.S. Fish and Wildlife Service's preparation of biological opinions. NMFS will actively explore the capabilities of USDA's Agricultural Research Service and Natural Resource Conservation Service to refine projections of pesticide and herbicide uses and potential environmental and aquatic exposures. The interagency working group will also undertake parallel work with relevant state pesticide programs to further refine the information utilized in the ESA consultation process. Finally, NMFS will explore the expanded use of the monitoring and modeling capabilities of the U.S. Geologic Survey (USGS) as appropriations allow.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO ERIC C. SCHWAAB

Question 1. What steps are you taking to improve the quality of stock assessments?

NMFS is working on several fronts to improve the quality of stock assessments. These include improvements in the monitoring of commercial and recreational catch,

in the number of fishery-independent surveys, in survey and assessment methods, and in the peer review processes to assure that the best science information available is delivered to fishery managers. As shown in the table below, these improvements have been implemented partly through funding increases provided in the Expand Annual Stock Assessment budget line.

	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12 President's Budget
Expand Annual Stock Assessment Funding ($M)	20.5	24.4	26.6	31.6	40.5	51.0	51.7	67.1
Percentage of Fish Stocks with Adequate Population Assessments	51.7%	52.2%	55.7%	56.1%	59.1%	57.4%	59.6%	60.0%

Over the past 5 years, NOAA has been able to replace four aging research vessels with new, state-of-the-science Fishery Survey Vessels. The advanced capabilities of these new vessels can improve stock assessment information. In addition, NMFS uses the Expand Annual Stock Assessment budget to support an Advanced Sampling Technology program to improve our ability to fully utilize the acoustics and other advanced equipment on the new vessels. Funding to sail these new vessels at their full operating capacity has been requested. Funding to repair and replace aging fisheries research vessels will help to maintain the increase in the number of stock assessments per year throughout this decade.

NMFS has added new surveys targeted on particularly important fish and shellfish stocks, including scallops and quahog in the Northeast and reef fish in the Southeast.

NMFS has invested in increased biological sampling from the fisheries to provide stock assessment data and is working on implementing the recommendations of a National Research Council review to improve the monitoring of catch and effort in the recreational fisheries.

NMFS has added stock assessment positions to all of its Science Centers and supports a fellowship program to increase the supply of highly trained candidates for these positions. These stock assessment scientists are experts in their field and work to conduct comprehensive stock assessments using state-of-the-science statistical methods.

NMFS has partnered with the Regional Fishery Management Councils to create peer review systems in each region and has supported a Center for Independent Experts to provide external, independent experts to participate in these peer reviews. These peer review systems assure a thorough and transparent review of new scientific assessments.

Question 2. Will you improve communication with the regulated community?

Answer. Yes, NMFS is taking specific steps to improve outreach to and communication with all stakeholders, including the regulated community. We must work diligently to listen to our stakeholders, especially the regulated community, in order to foster clear, balanced, and consistent external communications.

NMFS recently commissioned an independent Regional Assessment and Management Review that made recommendations about how we communicate with and provide customer service to the industry and the general public in the Northeast. We are committed to continuing our efforts to improve our communications with external audiences. Specifically, in the Northeast, we will consolidate our communications staff under one program and coordinate them under one communications plan. We will build on recent efforts like the Navigator now found in Commercial Fisheries News to simplify the way we explain the actions we are taking and how they impact industry. We will also build on our efforts to communicate directly with industry through programs like the pilot Fisheries Information Centers and our new compliance liaison position in the Northeast.

Question 3. What specific steps will you take?

Answer. NMFS is working through its Office of Communications and with the regional communications and outreach teams to increase the frequency and quality of electronic communications with specific stakeholders on the national and regional level, including the regulated community. These communications include a new "External Affairs Newsletter" which can be sent nationally, or targeted to regions or states. This approach was lauded as part of NOAA's effort to keep stakeholders up to date on response efforts in the Gulf of Mexico during the *Deepwater Horizon* BP oil spill. An increased emphasis is also being placed on in-person meetings with stakeholders. For example, to strengthen its efforts to improve communication with, and outreach to, the regulated community in New England, NMFS recently hired a former commercial fisherman as a "compliance assistance liaison" in the North-

east Region. NMFS recently announced that we will expand the compliance liaison program nationwide to assist fishermen in better understanding regulations and having stronger incentives to comply with them. As a liaison, this NMFS employee interacts daily with individuals and groups among the regulated communities and works with them to solve problems. Another recent and successful communications effort the agency launched is providing an insert into popular fishing community newspapers that highlights and interprets fisheries information for fishermen and others interested in Federal fishery issues along the East Coast.

Question 4. The MSA provides several exemptions from certain requirements for species whose management exceeded our scientific capabilities or our sole jurisdiction. For example, the Act provides exceptions for unique short-lived species such as squid and shrimp, and for species that are part of an international agreement in which the U.S. participates. Similar to a short-lived species, extraordinarily high levels of natural mortality in species such as butterfish may limit our ability to determine overfishing. This sets up a scenario that could affect fishermen from other fisheries that interact with butterfish as an unintended consequence, such as our domestic squid fishery. Would providing an exemption from the Annual Catch Limit requirements for a data poor species with a unique life history such as butterfish make practical management sense?

Answer. The data for butterfish and its life history are not so extreme or unique as to warrant an exception to the Annual Catch Limit requirement, *i.e.,* butterfish can be assessed and can be managed using Annual Catch Limits, particularly given the flexibility provided in the National Standard 1 Guidelines. Butterfish is a highly productive species that usually matures by age one and has a 3 year life span. In the past, there has been ample data to construct a quantitative stock assessment, and it has been assessed in the past (*i.e.,* 1983 and 2004).

In general, providing exemptions from the Annual Catch Limit requirement for data-poor species or species with varied life histories would likely weaken the Councils' and NMFS's ability to obtain the optimum yield of those species and prevent overfishing on them, consistent with National Standard 1. Due to their unique life history, Congress provided an exception from the Annual Catch Limit requirement for stocks with a life cycle of approximately 1 year, as the process for setting Annual Catch Limits (*i.e.,* annually) does not fit well for such stocks. This exception allows flexibility for Councils to use other management measures for these stocks which are more appropriate for the unique life history and the specifics of the fishery which captures them. However, these short-lived species are still required to have estimates of other biological reference points (*e.g.,* maximum sustainable yield, optimum yield, Acceptable Biological Catch, etc.). Also, if the species is experiencing overfishing, the exception cannot be used and Annual Catch Limits are required to be implemented.

Guidance for appropriately accounting for uncertainty in managing data-poor stocks has been available since at least 1998. Some examples of guidance provided to date for data-poor species includes:

- The use of a 75 percent Acceptable Biological Catch control rule which is applied to catch levels that are thought to be sustainable;
- The use of stock complexes to address management of data-poor stocks in a fishery and the use indicator stocks as a management proxy for data poor stocks;
- Methodologies for assessing the vulnerability of stocks, which can be used to aid managers in the formation of stock complexes and to determine the risk of overfishing;
- The use of data tiers to develop Acceptable Biological Catch control rules for a stock or complex to allow flexibility to address different levels of scientific uncertainty; and
- Multiyear averaging of data for fisheries that have highly variable annual catches.

Additional guidance for specifying Annual Catch Limits for data-poor species is currently being developed. At the 2009 National Workshop of the Councils' Scientific and Statistical Committees, a working group was established to identify and evaluate alternative approaches for setting Acceptable Biological Catch for data-poor fisheries. Members of the working group come from a variety of organizations and agencies: Council staff, Council Scientific and Statistical Committees, academia, non-governmental organizations, state agencies, and NMFS. The working group is currently finalizing its report, and plans to make it available to the public this spring.

Question 5. We share the Atlantic mackerel stock with Canada but do not have a formal international management agreement. Therefore, the current trans-bound-

ary exception in the Act does not apply to mackerel. However, there is evidence this stock is moving more toward Canadian waters. Do you take the shared nature of this stock into account when making management decisions about mackerel?

Answer. The Atlantic mackerel stock spans both U.S. and Canadian waters; thus, the U.S. considers the status of the entire stock in setting quotas. The U.S. Atlantic mackerel Fishery Management Plan requires that the U.S. Acceptable Biological Catch must be calculated by deducting estimated catch of Atlantic mackerel in Canadian waters in the upcoming year from a target total catch level. Though the U.S. quota-setting process accounts for Canadian landings, there is no related limitation on Canadian landings.

Question 6. Would the law allow you to provide for a limited exception from the ACL requirement despite not having a formal agreement with Canada?

Answer. There is no authority in the Magnuson-Stevens Act to exempt the Atlantic mackerel fishery from the Annual Catch Limit requirement absent an agreement with Canada for this species. There is currently no such agreement with Canada.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. OLYMPIA J. SNOWE TO ERIC C. SCHWAAB

Question 1. In the New England groundfishery, we have 20 separate stocks, some of which are rebuilt and the rest of which are on their individual rebuilding trajectories. Yet, by assigning total allowable catch to each stock, our fishermen are now confronting the practical reality that the first species that reaches its limit can completely shut down the entire fishery. Effectively, our ocean economy is confined by the most delicate species, or "choke stocks," as they are often called. As a chain is only as strong as the weakest link, our fishing economy will fail to grow if we continue to be inflexible with respect to the management of the entirety of the groundfishery. Would NMFS consider increasing allowable catch of one stock if that would permit harvest of another species that is not overfished? Although reducing overfishing and rebuilding stock is of course required by Magnuson-Stevens how can NMFS also balance the requirement to have the highest possible yield for healthy stock as well?

Answer. The spatial co-occurrence of multiple stocks of Northeast groundfish and their potentially widely different abundance levels has been a major challenge to the fishing industry, the New England Fishery Management Council (Council) and NOAA's National Marine Fisheries Service (NMFS) for many years. The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires all managed fisheries to be fished at a sustainable rate that can produce the maximum sustainable yield (MSY), and rebuild depleted (overfished) stocks to a sustainable level within a defined time period. The effect of the MSA requirements on a multi-stock fishery may make it difficult for the fishery to achieve full utilization of healthy stocks, because of the measures needed to effectively manage the "weak" stocks. Although the design of management measures and modification of fishing behavior can minimize this under-utilization, it is not always possible to harvest the entire quota for stocks that are rebuilt or relatively healthy. However, NMFS is confident that because of the flexibility provided through the sector management system, vessels have been more successful at targeting healthy stocks while avoiding stocks of concern. For example, haddock and redfish landings for the first 10 months of this fishing year have exceeded landing from the same time period in 2009 by 37 percent and 30 percent, respectively. We expect this trend to continue.

The MSA does not explicitly provide for a mixed-stock exception. However, NMFS did allow for a limited exception regarding the prevention of overfishing when it established the advisory guidelines on development of fishery management plans (based on the MSA's National Standards). This is what has come to be referred to as the "mixed-stock exception." This exception was intended to enable flexibility in managing fisheries that catch and land several stocks of fish using the same gear types in the same general areas by temporarily allowing overfishing to occur (*i.e.,* allowing a higher rate of catch that would not be sustainable over the long term) on some stocks so that higher levels of catch may be realized on other stocks. This mixed-stock exception, however, does not apply to overfished stocks, and it does not create an exception to the MSA's mandatory rebuilding requirements. Thus, the applicability of the mixed-stock exception is narrowly constrained. A discussion of the exception may be found in the final rule implementing revised National Standard Guidelines (74 FR 3178; January 16, 2009).

In response to a court order in a case challenging Framework 42 to the Northeast Multispecies fishery management plan, NMFS wrote two papers addressing the applicability of the mixed-stock exception to Framework 42*. The conclusions of those

papers were that the mixed-stock exception was not applicable to Framework 42, because temporarily allowing overfishing of some stocks through the "mixed-stock exception" would prevent overfished stocks from rebuilding within statutory timeframes and cause the fishery to be inconsistent with the requirements of the Magnuson-Stevens Act. Although these papers apply specifically to Framework 42,* they provide further background and analysis on the applicability of the mixed-stock exception to any fishery.

Use of the mixed-stock exception is very limited when overfished stocks are involved. However, the fishery Councils can choose to adopt rebuilding timelines for some stocks that are less aggressive than for other stocks. The New England Council has chosen to rebuild stocks at different rates, within limits and timelines established by the MSA, to account for the different characteristics of the stocks and to help reduce short-term economic impacts (Amendment 13). For example, the Northeast Multispecies Fishery Management Plan extends the rebuilding deadline for Georges Bank cod to 2026, Gulf of Maine Yellowtail flounder to 2023, and Acadian redfish to 2051. Such management decisions will provide similar results as those that can be achieved through the Agency's use of a limited mixed-stock exception.

Question 2. As you know there is significant interest in developing renewable offshore energy in the Gulf of Maine and this will likely affect the New England groundfishery. Clearly, it is critical that we determine the most suitable areas for fishing or energy production, and in some situations both. In addition, while there is some experience in Europe, there remains significant uncertainty about the potential effects of developing offshore renewable energy facilities. How is NMFS working to provide data to determine the areas that should be streamlined for permitting as well as areas that raise potential concerns? Has NMFS researched whether wind turbines may modify circulation patterns and whether this would have implications on key migratory species?

Answer. NMFS participates in the ocean energy siting process by identifying habitat areas of known ecological value, including Habitat Areas of Particular Concern, corals, live or hardbottom habitats, topographic features, estuaries, etc. NMFS provides information to other Federal agencies and the public about the vulnerability of these areas and the need to avoid them during siting of ocean energy facilities, as well as information about the types of habitat impacts that should be avoided, minimized, or mitigated during installation and operation of ocean energy facilities. By working with Federal action agencies that are involved with leasing, licensing, or permitting ocean energy projects, NMFS is attempting to develop a consultation process that will not unduly impede development of renewable ocean energy while recognizing the need to preserve and protect certain marine habitats.

NMFS staff also participates on all of the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) task forces for the northeast region (ME, MA, RI, NY, NJ, DE, MD, VA). As a participant on these task forces, NMFS is providing technical support to the U.S. Department of the Interior's Smart from the Start Initiative for offshore wind energy development. Through this process, NMFS has provided comments and information regarding habitat and protected resources concerns within BOEMRE's proposed wind energy areas; alerted BOEMRE to fishing activity and fishery management regulations within these areas; educated BOEMRE on the role of Regional Fishery Management Councils in the process, and encouraged that agency to coordinate with broader Coastal and Marine Spatial Planning initiatives. NMFS has compiled existing agency data within the proposed BOEMRE wind energy areas, and staff members are also coordinating with the Fisheries Management Councils to ensure they are included in the process.

NMFS staff is also involved in a joint research project with the Navy, BOEMRE, and the U.S. Fish and Wildlife Service to improve our knowledge of marine mammal, sea turtle, and sea bird distribution and abundance along the Atlantic Coast. Alternative energy development along the Atlantic was a significant driving factor leading to this cooperative project. The project is planned to continue through FY 2014, subject to funding, with the possibility of further data collection through FY 2018. Additionally, NMFS and other NOAA line offices also participate in the Federal Renewable Energy Ocean Energy Working Group, which is working to promote the successful, environmentally and socially responsible deployment of offshore renewable energy devices.

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* *"Consideration and Analysis of the Application of the Mixed Stock Exception to Ending Overfishing and its Applicability to Framework 42 to the Northeast Multispecies Fishery Management Plan" (January 2009), and "Further Consideration and Analysis of the Application of the Mixed Stock Exception to Ending Overfishing and its Applicability to Framework 42 to the Northeast Multispecies Fishery Management Plan" (February 2009).*

Outside of NMFS, NOAA's Office of Oceanic and Atmospheric Research's National Sea Grant Program also has a role in community outreach regarding offshore wind energy. Specifically, the Maine Marine Extension Team, a partnership between Maine Sea Grant and University of Maine Cooperative Extension, is holding a series of discussions in Spring 2011 about research and monitoring plans for the University of Maine's Deepwater Offshore Wind Test Site that has been established in coastal waters south of Monhegan, Maine. Project leaders will share highlights of research and monitoring results, and seek community input from residents, fishermen, and business owners in midcoast Maine regarding plans to develop a world-class offshore wind research site. The meetings are sponsored by the DeepCwind Consortium, Advanced Structures and Composites Center, Maine Sea Grant, and University of Maine Cooperative Extension.

Multiple NOAA line offices also supported the FY 2010 funding opportunity for Developing Environmental Protocols and Monitoring to Support Ocean Renewable Energy and Stewardship, which was conducted through the National Oceanographic Partnership Program (NOPP). NMFS, the Office of Oceanic and Atmospheric Research, and NOAA's National Ocean Service joined partners at the BOEMRE, as well as the Department of Energy to provide over $6 million in funding for eight projects that were focused on understanding, characterizing, and monitoring the environmental impacts of ocean energy.

NMFS is not aware of any research indicating that wind turbines may modify circulation patterns and whether this would have implications on key marine migratory fish species. However, in response to the July 19, 2010 National Policy for the Stewardship of the Oceans, Our Coasts, and the Great Lakes established by Presidential Executive Order No. 1354 (commonly referred to as the "National Ocean Policy"), Federal, and New England state and tribal governments, in consultation with the New England Fishery Management Council, will be working to develop a comprehensive and ecosystem-based regional plan starting this summer. This regional Coastal and Marine Spatial Plan will include a characterization (regulatory and scientific) of the Gulf of Maine to help us to consider how to minimize conflicts among uses like energy and fishing, while mitigating the environmental impact of those uses. This proactive and transparent planning process will enable managers to make more informed decisions about how we use the Gulf of Maine resources as well as consider the cumulative impacts of those uses into the future.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. ROGER F. WICKER TO ERIC C. SCHWAAB

Question 1. In your testimony you discussed improving the Expanded Stock Assessment programs. These improvements could reduce uncertainty in estimating fish populations and improve fisheries management decisions. Please describe how NMFS can decrease the time between data collection and dissemination of these data to fisheries management councils.

Answer. Stock assessments are based on several sources of information: fishery-independent data on population trends, obtained from field surveys; and fishery-dependent data, obtained from landings data, fishery observers, and, for stocks with significant recreational fisheries, from surveys of recreational fisheries. NMFS is taking several steps to increase operational efficiency and reduce the time between data collection and the application of the data to management decisions.

In the FY 2012 President's Request, NMFS is requesting $67.1 million to expand annual stock assessments, an increase of $15 million. These funds will be used to improve assessments for high priority stocks; update assessments for stocks more frequently; and, conduct fishery-independent surveys to enable assessment of more stocks, including data poor stocks, 3–5 years from now. NMFS proposes to use a portion of these funds, $3 million, to invest in advanced technologies for fishery-independent surveys. Among the projects that will be supported with these funds will be near real-time processing of survey data as it is collected at sea and more rapid delivery of these data to shore-based analysts conducting the stock assessments.

For fishery-dependent data, NMFS is currently developing new ways to improve the data quality and timeliness of recreational catch data. Our Marine Recreational Information Program (MRIP) has begun the use of electronic logbook reporting in the Gulf of Mexico to speed up data processing. NMFS also hosted an MRIP workshop focused on improving the timeliness for recreational catch data. The workshop was able to identify key ideas that could increase timeliness for recreational fisheries and improve the ability to make in-season management decisions. The President's FY 2012 budget request therefore includes an increase of $3 million to leverage these current recreational fisheries monitoring efforts, $2 million of which will

allow MRIP implementation to address the timeliness issues identified in the aforementioned workshop and $1 million to fully implement electronic logbooks in the Southeast Region.

NMFS is also working to increase observer coverage and the number of staff available to process and manage the data collected by observers. This is important because observers collect high quality information on catch and bycatch that is directly incorporated into stock assessments. Biological samples such as ear bones (otoliths), fin rays, or vertebrae collected by observers are used to determine the age of fish, a critical component of any stock assessment. Unbiased, fishery-dependent catch and bycatch data from observer programs are also used in stock assessments. Additional staff, including fisheries scientists to process the data, would increase the timeliness of catch and bycatch estimates. However, funds for observer programs were reduced in FY 2011, so the time required to provide data from observers to fishery management councils will likely increase.

NMFS is working with the Scientific and Statistical Committees of the Regional Fishery Management Councils to streamline the scientific review process, so that more assessments can be delivered quickly to the councils as updates, rather than as extensive investigations that require more thorough peer review. The tempo of assessment updating was a significant topic at the NMFS-sponsored workshop in February 2011 on the scientific needs for implementation of annual catch limits.

Question 2. In your testimony you discussed the fact that increases in fisheries stock levels take time and require some significant short-term sacrifices by fishermen. These short-term sacrifices could force some fishermen to exit the fishery. Will NFMS facilitate the re-entry of these fishermen to the fishery when stocks are rebuilt and annual catch limits are increased?

Answer. NOAA is very concerned about the hardships that some fishermen and fishing communities have experienced recently as NOAA and the Regional Fishery Management Councils work to fulfill the Magnuson-Stevens Act requirements to end and prevent overfishing through implementation of annual catch limits. As overfished stocks rebuild, it is anticipated that there will be more harvest opportunities as the stocks reach their sustainable abundance level.

NMFS and the Regional Fishery Management Councils work closely with fishermen and other stakeholders in a highly participatory public process during the development of fishery management programs to minimize impacts to the industry. The Council process is highly adaptive and flexible allowing for new information to drive modifications to management measures. For example, if there is new scientific information that supports raising the catch limits, which could provide more opportunities for some fishermen to re-enter the fishery, then management options will be revisited through the Council process.

People who leave a fishery may be able to re-enter, depending on the management provisions of the fishery management plan. In some cases, fishermen leaving a fishery may retain their permit, and can re-enter the fishery at a later date. In other cases, fishermen may sell their permits upon leaving the fishery, and, depending on the provisions in the fishery management plan, might have to purchase a permit from another permit holder in order to re-enter the fishery. NMFS has several programs, such as the individual fishing quota loan program and Capital Construction Fund that may assist fishermen in re-entering fisheries.

The FY 2012 President's Budget includes a proposal for $8 million to create a working waterfronts grant program. This program will assist fishing-dependent coastal communities adversely affected by changes in the fishing industry on which they depend. This program will assist distressed or at-risk fishing communities by providing resources for communities to engage in planning, capacity building, and other activities.

Question 3. In your testimony you cited NMFS research that supports past and projected fishery contributions to our economy. The most recent estimates of sales revenue and jobs directly supported by U.S. fisheries comes from 2008, which does not fully reflect the effects of the recession or the 2010 Gulf oil spill. Is NMFS working on an updated fisheries economic report that will include these factors? Do you have independent research to corroborate these NMFS statistics cited in your written testimony?

Answer. The 2009 commercial and recreational fisheries economic impacts will be available in the coming weeks. NMFS uses IMPLAN, a commercially available software package for modeling economic impacts, to estimate sales, jobs, income, and value-added impacts. IMPLAN recently released a new version of its software causing NMFS to update its models, which delayed the release of the 2009 estimates. The 2010 commercial fisheries data will not be available in all fisheries until summer 2011. NMFS plans to release the 2010 economic impacts in late summer.

NMFS has had its national models internally reviewed. In addition, we have validated all of the results from these models against regionally-implemented IMPLAN models developed by NMFS, as well as regionally-implemented models using other software platforms. The regional models are used in management and have been externally peer-reviewed. The national model compares well with the regional models because they use the same information and information structure as the regional models. NMFS also validates its models against models developed by other entities, *e.g.,* state agencies.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. KELLY AYOTTE TO ERIC C. SCHWAAB

Question 1. In your testimony you state that the 10 National Standards for fishery conservation and management provide a yardstick against which all fishery management plans and measures developed by the Councils are measured. As you know, National Standard 4 requires that fishery management councils "apportion fishing privileges in a fair and equitable manner." Many in the fishing industry believe that NOAA's catch share allocation system favors those with well-documented catch history and does not reflect accurate historical data for all participants. In light of these concerns, please explain whether the catch share allocation scheme is consistent with National Standard 4.

Answer. There is not an over-arching, national NOAA catch share allocation system. In both catch share and non-catch share fisheries, allocation decisions are made by the individual Regional Fishery Management Councils (Councils) and are based on the specific needs and unique characteristics of each fishery and its participants. The NOAA Catch Share policy recommends that Councils periodically revisit allocations and that the basis for allocation should include consideration of conservation, economic, and social criteria.

With respect to the Northeast sector program, the New England Fishery Management Council considered a range of participation criteria and ultimately adopted the allocations it considered the most fair and equitable. Individual fishermen have the opportunity to correct inaccurate historical data by appealing the specific allocation they received to the NMFS. NMFS continues to work with fishermen to correct historical catch information when appropriate documentation supporting the change is provided. In addition to requiring allocations be "fair and equitable," National Standard 4 requires allocations to be "reasonably calculated to promote conservation" and carried out in such a way that no individual or entity acquires an excessive share. For all new sectors approved under Amendment 16, the sector vessels were subject to the same criteria for determining sector allocations, which were calculated to promote conservation and do not allow one entity to acquire an excessive allocation of any stock, because sector allocations are temporary and allocations can be traded among sectors. Further, allocation among commercial and recreational components of the fishery and between sector and non-sector vessels is reasonably calculated to ensure accountability in the fishery and more effectively achieve conservation objectives.

With any allocation decision, the Councils consider a range of participation criteria and ultimately adopt the allocation system it considers the most fair and equitable. Individual fishermen have the opportunity to correct inaccurate historical data by appealing the specific allocation they received to NOAA's National Marine Fisheries Service (NMFS). NMFS continues to work with fishermen to correct historical catch information when appropriate documentation supporting the change is provided.

Question 2. As you know, National Standard 8 of the Magnuson-Stevens Act requires that fishery management plans "take into account the importance of fishery resources to fishing communities in order to provide for the sustained participation of such communities, and to the extent practicable, minimize adverse economic impacts on such communities." The fishing industry is concerned that the bureaucratic regulatory costs of catch share sectors have imposed unreasonable administrative burdens on fishing operations too small to absorb them. New Hampshire cannot afford to lose more jobs, especially in this difficult economy. In what ways could NOAA change catch share and sector policies in order to minimize these adverse economic impacts on the small fishing communities in New Hampshire?

Answer. The NOAA Catch Share policy includes fishing community sustainability as one of its guiding principles. Specifically, the NOAA policy recommends that Regional Fishery Management Councils (Councils) develop policies to promote the sustained participation of fishing communities and take advantage of the special community provisions in section 303A of the Magnuson-Stevens Fishery Conservation

and Management Act (Magnuson-Stevens Act). The community provisions in section 303A establish explicit eligibility and participation criteria and other obligations such as the development and submission to the Secretary of a community sustainability or regional fishery association plan. As with other considerations in the design of catch programs, the Councils strive to balance support for fishing communities with the flexibility fishermen and related businesses need to operate efficiently and implement innovative ideas. NMFS is committed to working with fishermen, state and local governments, public and private non-profit organizations, tribal entities, and others to help communities build their capacity to address long-term fishery and community sustainability such as by working across the Federal Government to provide technical assistance related to community economic development.

The catch share programs affecting communities in New Hampshire were designed through the New England Fishery Management Council process. The New England Council and NMFS developed the monitoring and reporting requirements for the sector management program in order to ensure accountability. Part of these requirements includes the submission of annual operations plans from each sector and an analysis of the impacts of the sector operations plan for approval by NMFS. These plans give the sectors the freedom to design their own plan to harvest their quota and the flexibility to make adjustments from year to year; however, these are detailed documents which require significant input from the members of the sector. Thus far, NMFS has taken on the responsibility of preparing the analyses for the sectors to relieve them of that burden. NMFS has, and will continue to, work with the Council and interested stakeholders to adjust the reporting and monitoring requirements for sectors, where additional flexibility could be provided and if there is interest from the fishing industry and the New England Council to do so. Additionally in FY 2010 and FY 2011, NMFS has provided significant funding to help the industry transition to the sector management program. Among other items, this funding has been used to pay for dockside and at-sea monitoring which would have otherwise been paid for by industry and to develop electronic reporting systems to be used in completing required catch reports. The Administration's FY 2012 budget requests additional funding to help fishing sectors, including funding to pay for dockside and at-sea monitoring requirements through the 2012 fishing year.

A proposed rule soliciting public comment on additional sector exemptions from groundfish regulatory requirements, as requested in the fishing year 2011 sector operations plans, closed on March 15, 2011. NMFS received several comments on these requested exemptions, some of which are specific to relieving administrative burdens, including exemptions from certain reporting and dockside monitoring requirements. The final rule on this action, which published April, 25 2011, included 17 regulatory exemptions for sectors, an increase from the 2010 Fishing Year. The final rule exempts specific handgear and small vessel permitted vessels from dockside monitoring requirements, removes the requirement for industry to pay for dockside monitoring in Fishing Years 2011 and 2012, and allows additional time for sectors to trade quota at the end of the fishing year to avoid exceeding their individual allocations among other measures. Additional New England Council actions underway to assist small fishing communities include actions that provide funding to the states of Maine, New Hampshire, Massachusetts, and Rhode Island in the form of Federal grant awards for the purpose of establishing several permit banks of Northeast multispecies fishing vessel permits. These permit banks are intended to provide small vessels and small communities with an opportunity to obtain additional quota or days-at-sea on the open market at a reduced cost.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN D. ROCKEFELLER IV TO DR. DOUGLAS DEMASTER

Question 1. You mentioned in your testimony that Acceptable Biological Catch (ABC) limits are set at a level such that there is an estimated 50 percent or less chance of overfishing a given stock. How was this < 50 percent probability-of-overfishing limit determined?

Answer. During the scoping period for revising the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) National Standard 1 Guidelines, NMFS received many comments on the topic of setting a specific probability of successfully preventing overfishing. Some commenters expressed that a 50 percent probability of success each year is all that is legally required, while other commenters expressed that the probability of success should be higher (*e.g.,* 75 percent or 100 percent).

Section 303(a)(15) of the Magnuson-Stevens Act requires that Annual Catch Limits be set "such that overfishing does not occur". Courts have found, and as a result it has been generally accepted practice in fisheries management, that to take actions that will prevent overfishing, those actions must have at least a 50 percent chance of success. The court in *NRDC* v. *Daley* [1] rejected a NMFS action intended to prevent overfishing that NMFS determined had only an 18 percent chance of success. The court held that at a minimum, when taking actions necessary to end overfishing, NMFS's actions must have at least a 50 percent chance of success in order to find that those actions are sufficient to prevent overfishing. When developing the relationship of the reference points—overfishing limit, Acceptable Biological Catch, Annual Catch Limit, and an optional Annual Catch Target—NMFS considered including specific probabilities of success regarding preventing overfishing and preventing catch from exceeding the Annual Catch Limit. In the final revised National Standard 1 Guidelines in 2009, NMFS did not include specific guidance on how much below 50 percent the probability of overfishing should be. This preserves flexibility for case-specific analysis and implementation for each fishery management plan. By taking a probability approach (*e.g.,* chance of overfishing), the inherent scientific uncertainty in knowing the true overfishing limit is acknowledged and incorporated into management decisions.

The National Standard 1 Guidelines explain how the Regional Fishery Management Councils should each work with their Scientific and Statistical Committees to understand the uncertainty involved in each fishery and then determine, based on scientific advice, the level of risk of overfishing they think is appropriate to take with each stock however that risk should not exceed 50 percent and is recommended to be lower.

Question 2. How often have ABCs been set too high, resulting in overfishing?

Answer. When an Acceptable Biological Catch is established, it is an estimate of a catch level that would not result in overfishing, with a specified probability, if the exact Acceptable Biological Catch was caught. The probability that catch equal to Acceptable Biological Catch would result in overfishing cannot exceed 50 percent. However, the actual catch will seldom be exactly the Acceptable Biological Catch, as there is uncertainty in the management of the fishery to its catch limit. In order to prevent overfishing, the actual catch will usually be somewhat less than the Acceptable Biological Catch.

A subsequent stock assessment might indicate, based on new information, that the prior Acceptable Biological Catch had been set too high. So, in some cases, management that was thought to be safe (*i.e.,* not overfishing), could be determined later to have been overfishing. In the coming years, Annual Catch Limit performance, including evaluation of the Acceptable Biological Catch control rules, will be evaluated. This evaluation will occur over the next several years, as fisheries are managed under Annual Catch Limits and new stock assessments are completed.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BILL NELSON TO DR. DOUGLAS DEMASTER

Question 1. While anecdotal evidence may not be as compelling as other types of information, it would only help NMFS develop a complete view of a given fishery. Does NMFS incorporate anecdotal evidence from fishermen in stock assessments? Why or why not?

Answer. Anecdotal information is an invaluable part of the stock assessment process. Often, our first indicator of a shift in stock status comes from observations of commercial and recreational fishers who are out on the water. Input from fishers is obtained at question and answer periods and during public testimony held at each Fishery Management Council meeting, and through their Advisory Panel representatives at stock assessment workshops. NMFS makes a concerted effort to stay in touch with the participants of the fisheries and to take advantage of their "on the water" perspectives for verification of trends seen in the data, as well for insight into trends that may be less obvious by examination of the data alone. Observations provided by recreational and commercial fishers have been used to generate hypotheses that can be tested by conducting new studies or by analyzing existing data. Stock assessments are quantitative and as such, it would be rare to use anecdotal information, which is often qualitative, as a substitute for quantitative information. During a stock assessment workshop, such as the Southeast Data, Assessment and Review process (SEDAR) used for South Atlantic, Gulf of Mexico and Caribbean assessments, anecdotal information can be used to inform decisions that are

[1] 209 F.3d 747, 754 (D.C. Cir. 2000).

made or to address questions that may arise regarding fishing practices, or changes in fishing patterns over the history of the fishery. Input from fishers or their Advisory Panel representative has been sought to address those questions. Use of anecdotal information in these ways is appropriate and strengthens the stock assessment process. Similar efforts to involve fishermen and their perspectives are practiced by the Northeast through species-specific working groups and the Northwest Fisheries Science Center via Pre-Assessment Workshops. While it may not always be obvious from examination of the final stock assessment product that gets published, the unique perspectives and evidence afforded by the various stakeholders is viewed as a critical part of the overall stock assessment process.

Question 2. It is my belief that the National Marine Fisheries Service could find creative ways to manage fisheries that will avoid closures and minimize restrictions in the Gulf and South Atlantic. What are you doing to create flexible, creative solutions that will keep our fishermen on the water?

Answer. NMFS recognizes the economic impacts of closures and other regulations on Gulf and South Atlantic fishermen and fishing communities, and we are committed to working with the Regional Fishery Management Councils to identify flexible and creative ways to achieve conservation mandates at the least cost. While Federal mandates require fishery managers to prevent overfishing by holding fisheries accountable to annual catch limits, NMFS is actively exploring opportunities to incorporate increased flexibility into the guidelines for specifying and managing Annual Catch Limits within the constraints of the law.

NMFS is encouraging the Regional Fishery Management Councils to consider the variability around landings data when specifying Annual Catch Limits for data-poor species and when monitoring landings relative to Annual Catch Limits. For example, accountability measures adopted by both the Gulf of Mexico and South Atlantic Councils for some stocks require Annual Catch Limits to be compared to average landings over a three-year period, rather than to annual landings, to reduce the likelihood of unwarranted corrective action.

In addition, NMFS is encouraging the Councils to consider measures to minimize the incidence of unplanned seasonal closures and/or Annual Catch Limit reductions. For example, the Gulf of Mexico Council recently approved a fixed two-month seasonal closure for greater amberjack to maximize the number of fishing days available to the recreational sector while reducing the likelihood of exceeding the Annual Catch Limit. The South Atlantic Council recently approved new measures to slow catch rates of black sea bass, gag and vermilion snapper for the same purpose. Finally, NMFS is also encouraging the Councils to consider the appropriateness and feasibility of using catch share management strategies to avoid unplanned closures and restrictions, as the individual fishing quota programs recently implemented in the Gulf of Mexico red snapper, grouper and tilefish fisheries have proven to be effective in this regard. However, such programs can be controversial and would not be implemented unless broadly supported by affected fishery participants.

Question 3. How much precaution is necessary before regulations start to undermine the ability to harvest maximum sustainable yield?

Answer. This question identifies the trade-off between the degree to which overfishing is prevented and the amount of foregone fishing opportunity in the short-term. This trade-off is also apparent in the harvest goal defined by the Magnuson-Stevens Act (and reiterated in the National Standard 1 Guidelines): to achieve the optimum yield from each fishery, while preventing overfishing (Magnuson-Stevens Act § 2(b)(4)). Ideally, stock assessments would provide near perfect information on the maximum annual level of catch that would not be overfishing, and fishery monitoring and management systems would be able to control the catch to exactly that level. In that case, the sequence of annual catches would average out to the maximum sustainable yield without any overfishing. However, our knowledge of the fish stocks and our control of the fisheries are never perfect, so the best that can be achieved in the long-term will likely be somewhat less than the maximum sustainable yield while we aim to set catch levels as close to it as possible. The National Standard 1 Guidelines recommend that the inherent uncertainty of the fishery assessment and management system be taken into account so there is no greater than a 50 percent chance that overfishing will occur, consistent with the Magnuson-Stevens Act requirement that Annual Catch Limits be specified at a level such that overfishing does not occur. The National Standard 1 Guidelines recommend that the chance of overfishing be less than 50 percent, but does not provide a specific level because the trade-off between degree of reduction in catch and degree of reduction in chance of overfishing is very case-specific.

Question 4. How does the National Marine Fisheries Service intend to address this conflict in 2011?

Answer. The Regional Fishery Management Councils are responsible for assessing and specifying optimum yield for each fishery in their fishery management plans (see Magnuson-Stevens Act § 303(a)(3) and (4)), subject to Secretarial approval. In addition to working directly with each of the Councils, NMFS provides descriptive yet flexible national guidance for assessing and specifying optimum yield, and will continue to work with the Councils to ensure that proposed management actions are appropriately analyzed according to requirements of the Magnuson-Stevens Act and other applicable laws (*e.g.,* National Environmental Policy Act, Regulatory Flexibility Act, E.O. 12866, Endangered Species Act, etc.). The Council process is highly participatory, allowing fishermen and other stakeholders multiple opportunities to comment on and contribute to the development of proposed management action(s) in order to balance social, economic, and ecological objectives and to minimize negative social and economic impacts to the extent possible.

NMFS has been, and will continue, assisting the Councils in implementing the new requirements for Annual Catch Limits in various ways, such as through participation in the National Scientific and Statistical Committee Workshops in 2008, 2009, 2010, and upcoming in September 2011. Presentations at the Scientific and Statistical Committee Workshops in 2009 and 2010 demonstrated potential methods to better calculate and portray the linkage between the degree to which fishing is reduced and the degree to which the chance of overfishing is reduced.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN F. KERRY TO DR. DOUGLAS DEMASTER

Question 1. The trawl surveys have been criticized for under sampling the fishing environment. Fishermen in Massachusetts are eager to see the type of technology Eric Schwaab witnessed at Northeastern University, namely the ocean acoustic waveguide remote sensing (OAWRS), which has the ability to instantaneously image fish populations over wide areas in highly complex environment used in stock assessments. This technology was presented to NOAA as early as 2003 and has yet to be utilized for any stock assessments. What steps in NMFS taking to explore new types of technology such as OAWRS and how are these technologies being integrated into stock assessments?

Answer. NMFS' scientists at the Northeast Fisheries Science Center have been involved in Ocean Acoustic Waveguide Remote Sensing (OAWRS) research with investigators from Northeastern University and Massachusetts Institute of Technology from the outset of that field program. NOAA personnel are viewed as principal collaborators in published studies that have mapped large shoals of Atlantic herring abundance within the region. Our scientists are enthusiastic about potential broader applications of this technique, but have noted practical issues that must be addressed before this technology becomes a standard tool to develop stock assessment data. Any acoustic method requires long-term investment in the identification of species and size composition from acoustic signals, automation of that process, and biological validation of the results. While these methodologies are relatively well-developed for single pelagic species targets such as Atlantic herring, there has been relatively less progress with respect to multispecies bottom-dwelling targets such as the New England groundfish complex. Current regional research using OAWRS includes estimation of spawning aggregations of Atlantic cod, while they are densely distributed and off the bottom. Extension to multispecies results for the entire New England groundfish complex (including bottom-tending flounders) will likely require a core 5–10 year program to develop a robust operating version of what currently is research technology, and address the species identification, automated processing, validation and statistical modeling questions.

NMFS Northeast Fisheries Science Center scientists have also been working closely with researchers at the Woods Hole Oceanographic Institution, NOAA's Office of Atmospheric Research, and the U.S. Navy's Office of Naval Research to evaluate broadband acoustic and optic underwater remote sensing systems. The Woods Hole Oceanographic Institution researchers have shown that broadband acoustic methods can resolve signals as individual fish at length, and when combined with biological sampling can detect multiple species within a single acoustic sample. This methodology could potentially be implemented in pilot mode with installation of a broadband transducer on an existing research vessel. Development of a towed optic underwater remote sensing system (Woods Hole Oceanographic Institution's Habitat Camera [HabCam]) to survey sea scallops has advanced to the point that several pilot surveys have already been undertaken, and a comparison of estimates from the video camera system versus traditional scallop dredge samples is planned for this summer. Development of video processing technology for that survey approach is in

the initial test phase. Use of the HabCam system will enable NMFS to significantly expand the bottom area surveyed for sea scallop abundance. NMFS and NOAA's Office of Atmospheric Research are also working with the Office of Naval Research to develop the use of autonomous underwater vehicles (*e.g.,* Remote Environmental Monitoring Units [REMUS] 100) coupled with an optic sensing system to survey bottom habitat for shell and finfish. A pilot study has just been completed in Massachusetts Bay.

Question 2. In New England, critical management decisions are being based on data (GARM 2008) that are up to 3 years old. The time lag between the collection of data and the inclusion of that information into the management process is poor. The assessment process should be better aligned with the management process so that the best available science is available at the time decisions are made. There is also much concern from industry that time and money is being spent on cooperative research that never makes its way into stock assessments. I want NMFS and NOAA to improve the science and how it is utilized in the management process. What can be done to increase the frequency of stock assessments and more quickly incorporate the findings of cooperative research?

Answer. NMFS recently released Phase I of the New England Management Review, which was an independent review that solicited information—positive and negative—from a variety of constituents and others knowledgeable about New England fisheries management. NMFS listened to feedback received, is taking this input seriously, and plans to act aggressively to build on the current system and improve the overall process. NMFS has a strong set of specific actions we are going to take to begin now to address concerns raised by people both inside and outside of this managements system and make improvements. The Review was very specific regarding the opportunity to improve science collaboration. It is critical that the science conducted by our Northeast Fisheries Science Center and partner research institutions is done in a more collaborative manner and in a way that maximizes involvement of fishermen in the findings.

Cooperative research is an essential component of our science work and we committed to two actions: (1) NMFS will work and plan together with research and academic institutions and fishermen to make the best use of limited research funding to answer some of the critical questions facing New England fisheries; and (2) NMFS will immediately initiate an expedited mid-term review of the 2009 strategic plan for cooperative research to involve all regional cooperating institutions. The results will be incorporated into FY 2012 funding prioritization decisions.

NMFS and the New England Fishery Management Council are in the process of re-engineering the stock assessment process to increase the frequency of stock assessments. At present, most stocks are reassessed every 5–8 years. Under the new process, almost all commercial stocks will be reassessed at least once every 3 years. This will be done largely by applying previously peer-reviewed baseline models to produce operational assessments, rather than going through development of a new benchmark model with every assessment. Stocks which require development of new assessment models will continue to be operationally assessed, while the new models are developed separately in a research track (this will avoid slowing the operational assessments for research). Scheduling operational assessments every 2–3 years will allow more timely incorporation of a variety of new data available from surveys and cooperative research, and will better align the frequency of assessments with the underlying biological variability in stock size. It will also provide a stable multiyear harvest level which will allow industry to better plan their investments in fishing effort.

Fishery managers are also reviewing all of NMFS' Northeast Region's fishery management plans to determine if there are changes that may be necessary or may facilitate incorporation of more frequent assessments into management action. This could mean revising fishery management plans to allow for multi-year specifications, adjusting/aligning fishing years, and regrouping similar stocks within fishery management plans.

The Northeast Region Coordinating Council has concluded their review of the proposed new process, and has charged NMFS and Council staff with development of an implementation plan. It is expected that this new process will be implemented in either 2013 or 2014, so as to not conflict with important benchmark assessments already planned for New England groundfish stocks and Atlantic herring.

Two sets of data are generated by cooperative research to inform the assessment process: data on fish stock abundance and distribution like the Northeast Area Monitoring and Assessment Program (NEAMAP) inshore trawl surveys, and research on the biology of harvested species (including tagging studies). Data from survey efforts are incorporated into the assessment process as soon as a time series is sufficiently long to make the data useable statistically. For example, the NEAMAP surveys

were not fully implemented until 2008, and will be used in assessments for the first time with this spring's winter flounder stock assessments, now that there is a 3-year time series available to monitor the trends shown in the survey. Other relevant research on stock biology is included as quickly as possible in the assessments. Again as an example, research on cooperative tagging research with cod in the Northeast was evaluated at a recent meeting of the New England Fishery Management Council's Scientific and Statistical Committee. Based on this, a special review of Atlantic cod stock structure will be convened in 2011–2012 to determine if the current two stock definition for Atlantic cod in U.S. waters is still consistent with the best available scientific and commercial data.

Question 3. What steps can be taken to lower the high amount of scientific uncertainty that is built into catch levels?

Answer. Specification of catch limits begins with the calculation of a stock's Overfishing Limit, which is the maximum allowable catch that could be taken from a stock in a given year without causing overfishing. The Overfishing Limit is measured with uncertainty that arises from the underlying model and its assumptions. Roughly speaking, a catch recommendation set exactly at the mean Overfishing Limit would have a 50 percent chance of overfishing and 50 percent chance of not overfishing the resource. Acceptable Biological Catches represent the reduction in catches necessary to ensure that overfishing does not occur. The primary steps necessary to minimize the catch buffers are to reduce the uncertainties in the stock assessment model.

Uncertainty in stock assessment models arises from the imprecision of basic data in the stock assessment model and from assumed mathematical relationships in the model. Imprecision in the data is called observation error; imprecision in the mathematical relationships is known as process error. Both types of uncertainty can be addressed through improvements in the: (1) quality and timing of data collection and processing; (2) sampling strategies; and (3) basic research.

Improvements in the collection of commercial landings data include application of quality assurance and control procedures, and implementation of outreach strategies to inform fishermen about the critical importance of the data they provide. Incomplete or missing landings data increase the uncertainty in measures of abundance and fishing mortality rates. Similarly, accurate estimates of discards are important for establishing the scale of populations. If discards are underestimated then population estimates will be biased low and the potential productivity of the fishery will be underestimated. Another step toward reducing the uncertainty of stock assessments is through improved sampling strategies for allocating observer coverage, collecting biological samples from fisheries, and conducting fishery-independent surveys. Increases in sampling coverage will nearly always improve precision (and reduce uncertainty), but increases in sampling, coupled with improved designs, can lead to even greater gains. Finally, there is much to be gained through basic research and collaborative research efforts. Basic research on factors such as natural mortality can be accomplished through improvements in sampling, monitoring, and experimentation. A well-designed experiment can pay huge benefits.

Collectively these steps can reduce the uncertainty in the model inputs and uncertainty in model structure or parameterization. No single step is sufficient to reduce the uncertainty so it is unwise to invest solely in one component without considering the whole system.

As NMFS continues to monitor the response of fish stocks to the fishery, greater certainty will gradually be achieved. The rate at which greater certainty is achieved depends upon the biology of the fish stock and the level of scientific data collection. NMFS has been using budget increases in the Expand Annual Stock Assessment budget line to increase scientific data collection by providing for additional fish abundance surveys, increasing the collection of data from the fisheries, and assessing more fish stocks more frequently. NMFS works with the fishing industry to collect additional data through cooperative research. In addition, NMFS is using advanced sampling technology, such as that on the four new NOAA Fishery Survey Vessels, to improve the accuracy and timeliness of scientific data collection. The at-sea monitoring and new reporting required under the Sector management system will provide additional valuable information to help reduce uncertainty in groundfish assessments.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARIA CANTWELL TO DR. DOUGLAS DEMASTER

Question 1. I have heard many scientists argue that we are still grappling with the core scientific questions that lie at the heart of the conflicts between Steller sea

lions and fishermen in the North Pacific. After many millions of dollars spent on research, we still cannot definitively say to what extent fishing is impacting Steller sea lion populations. Under the Endangered Species Act, NMFS is required by law to arrive at an answer, but scientifically we still lack a fundamental understanding of the answer to that question with any certainty. Would it be useful to consider an adaptive management approach, where the fishery management regime is designed as a series of experimental treatments with the explicit purpose of attempting to answer some of the fundamental Steller sea lion questions?

Answer. NMFS attempted to implement an adaptive management framework in its 2000 Biological Opinion (BiOp). In that approach, fishing grounds in the Gulf of Alaska and Bering Sea/Aleutian Islands were divided into 13 zones. Some of these areas would have been closed to fishing; others open, but with certain restrictions. On inspection by the North Pacific Fishery Management Council and based on public comment, this approach would have had devastating economic impacts for the groundfish fishery in Alaska. The fundamental problem in any adaptive management approach is twofold: (1) the contrasts between different areas has to be sufficient to produce statistically significant results, which creates problems for fisheries in certain areas, and (2) the time-frame to achieve statistically significant results is relatively long (*e.g.,* 5–10 years), and is therefore difficult for a Federal agency to support throughout the life of the experiment.

The 2003 National Research Council report on declines in Steller sea lion abundance, *Decline of the Steller sea lion in Alaskan waters; untangling food webs and fishing nets*,[2] encouraged NMFS to reconsider an adaptive management approach. In response, NMFS worked closely with the North Pacific Fishery Management Council. Efforts were made to solicit proposals for robust experimental approaches that included close cooperation with the fishing industry. After approximately 18 months of effort, no proposals were forthcoming from any State, Federal or private institutions.

NMFS has implemented several small scale experiments that were intended to be responsive to the recommendations of the National Research Council, but also acceptable to the North Pacific Fishery Management Council (*e.g.,* study on pollock in the vicinity of Kodiak Island; study on cod in the Unimak Pass area; and study on Atka mackerel in the Aleutian Islands). The details of these studies are described in the 2010 Biological Opinion.

Question 2. What would be some potential benefits of utilizing an adaptive management approach for Steller sea lions and the fishing industry in the North Pacific? What outcomes would we hope to achieve under such an approach?

Answer. Adaptive management experiments are typically designed to answer specific management questions. Over time and with constancy in operations, area-specific contrasts in specified metrics are statistically tested to ascertain whether a particular hypothesis is consistent with the available data. For example, in the proposed adaptive management experiment described in the NMFS BiOp (2000), changes in trends in abundance and pup condition were to be tested between areas closed to fishing and areas open, but with some restrictions. The spatial and temporal scale of these experiments to address complicated ecological relationships has to be large. Therefore, to be effective, such experiments tend to be costly to implement and disruptive to local constituents. Nonetheless, the expected outcome of such an approach, if appropriately designed and effectively implemented, would be to accept or reject specific hypotheses that have to do with the relationship between commercial fishing and the lack of recovery in the western Steller sea lion Distinct Population Segment.

Question 3. Hasn't adaptive management been recommended and/or proposed in the past with respect to Steller sea lions?

Answer. NMFS recommended an adaptive management approach in past BiOps (*e.g.,* 2000). Further, the National Research Council and the North Pacific Fishery Management Council have also recommended that NMFS attempt to design an adaptive management experiment that was statistically robust, affordable, and acceptable to the fishing community. Efforts to date to design such an approach have not been successful.

Question 4. Under the current management, research, and monitoring regime, is it likely that we will still lack definitive answers to the core questions discussed above five or 10 years from now? To have any hope of dramatically increasing our

[2] National Resource Council. 2003. Decline of the Steller sea lion in Alaskan waters; untangling food webs and fishing nets. National Academy press. Washington, D.C. 184 pp, available at *http://www.amazon.com/Decline-Steller-Lion-Alaskan-Waters/dp/0309086329.*

understanding of those fundamental questions, do we need a different approach (like possibly adaptive management)?

Answer. Over the past 15 years, considerable understanding has been achieved. For example, there is general agreement that the current lack of recovery is primarily a problem in the western and central Aleutian Islands and to a lesser extent in the central Gulf of Alaska. In addition, a statistically significant improvement in trend in abundance in the decade of the 1990s compared with the most recent decade was detected. Nonetheless, the Endangered Species Act requires that NMFS be able to ensure that management actions have removed the likelihood of jeopardizing the existence of listed species or adversely modifying their critical habitat.

The existing approach implemented by NMFS in 2011 can be considered an application of adaptive management. That is, there are three contrasts in fishing practices established: (1) closure; (2) reductions in catch levels and spatial restrictions; and (3) no change. Therefore, NMFS can test various hypotheses regarding relations between Steller sea lions and commercial fishing, using data from the 1990s (overall period of decline), 2000s (overall a period of stability, with significant declines in certain sub-regions and significant increases in other sub-regions), and the next decade. Critical to our full utilization of this paradigm is funding to support: (1) biennial surveys of pups and non-pups; (2) biennial surveys of fish biomass in the Aleutian Islands; (3) food habits studies in each of the seven sub-regions; (4) tagging studies to better determine the manner in which different age and sex classes forage inside and outside of critical habitat; and (5) life history studies to allow for the estimation of age and sex specific rates of natality and survival.

Question 5. Would NMFS be open to considering or discussing adaptive management for North Pacific fisheries with respect to Steller sea lions?

Answer. NMFS welcomes working with the North Pacific Fishery Management Council and other entities in an effort to design, fund, and implement an effective adaptive management experiment to better understand whether commercial fishing in Alaska is having a negative impact on the recovery of western population of Steller sea lion. NMFS has pursued small scale experiments to address uncertainty in qualifying the relationship between Steller sea lions and commercial groundfish fisheries in the past. In 2011, NMFS, with support from the industry and the North Pacific Research Board, intends to conduct tagging studies on Atka mackerel in the Aleutian Islands. Recovery of tags will provide information on movement patterns of Atka mackerel between critical habitat and area outside of critical habitat. If the information provided from this study indicates an ability to revise the existing management regime in a manner that would be consistent with the ESA, yet beneficial to the fishery, NMFS will implement the process needed for such a change.

Question 6. For such an approach to be successfully designed and implemented, do you believe that it would require the support and participation of stakeholders such as the fishing industry and environmental groups?

Answer. Yes, all relevant stakeholders should be involved to maximize the likelihood of success in this type of adaptive management experiment. At the very minimum, the North Pacific Fishery Management Council and directly affected fishing interests would have to be involved, given the necessarily large differences between treatments and control for there to be any chance of statistical robustness.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. ROGER F. WICKER TO DR. DOUGLAS DEMASTER

Question. You provided a general overview of how fishery stock assessments are prioritized by NMFS. The 2010 BP oil spill severely impacted the Gulf Coast fishing industry, and there remains a high level of scientific uncertainty regarding how fish populations were affected and how they might recover. Considering the broad impacts of this tragedy in the Gulf of Mexico region, how will NMFS prioritize the assessment of fisheries critical to the Gulf Coast economy?

Answer. In FY2010, Congress provided a $10.4 million increase to the Expand Annual Stock Assessments budget line. This increase enabled NMFS to provide substantial new resources to enhance our capabilities for conducting and reducing uncertainty in stock assessments in the Gulf of Mexico. Even prior to the BP oil spill, NMFS used a portion of the FY 2010 increase in stock assessment funds (the Expand Annual Stock Assessment budget line) to add additional assessment scientists to the NMFS Southeast Fisheries Science Center. The addition of these scientists will allow NMFS to conduct more comprehensive analyses of available data for Gulf of Mexico, South Atlantic, Caribbean, and Atlantic highly migratory species stocks, and to update the assessments for more stocks more frequently.

In addition, because of the BP oil spill, the NMFS Southeast Fisheries Science Center received a one-time infusion of $10 million in FY 2010 emergency supplemental funding to enhance our ability to assess stocks in the Gulf. To maximize the benefits derived from these funds, the NMFS Southeast Fisheries Science Center and the Gulf States Marine Fisheries Commission organized two workshops in August and September 2010, to evaluate and improve the sampling design of the surveys conducted by the Southeast Area Assessment and Monitoring Program. Subsequently these funds were distributed to maximize the impact for enhancing stock assessments in the Gulf. Over half of the funds were provided to the Gulf States Marine Fisheries Commission for chartering commercial vessels to conduct additional fishery-independent surveys. The remaining funds were used to contract for additional scientists for staffing these surveys at sea, increased observer coverage to improve data on bycatch in commercial fisheries, increase capacity for processing biological samples for incorporation of age data into stock assessments, and improve data processing and management for trip tickets and electronic reporting in the for-hire segment. In addition, a portion of these funds was used to provide 2 years of support for an additional staff member for the SouthEast Data, Assessment, and Review (SEDAR) process for supporting additional peer-review activities related to assessing Gulf of Mexico stocks.

NMFS's criteria for prioritizing stocks for assessments were also applied to help identify the highest priority stocks for assessments. Briefly, these criteria are:

- Economically valuable stocks and associated fishery limiting stocks with high uncertainty;
- Intensity of fishing: if overfishing is occurring;
- Stock abundance : if the stock is overfished or on a rebuilding plan;
- Assessment frequency: if the current assessment is over 5 years old;
- Stock importance: if the stock is of high commercial or recreational value; and
- Synergy factors: if a small increment can produce an assessment or contribute to other assessments.

Given these enhancements to NMFS Southeast Fisheries Science Center's capacity to generate and analyze the data used in stock assessments, current plans are to assess Gulf stocks of vermillion snapper and grey triggerfish in 2011 and red snapper and mutton snapper in 2012. In addition, the enhanced data collections and processing will contribute to improved assessments for several other Gulf stocks in the future, including red grouper, gag grouper, amberjack, and shrimp.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN D. ROCKEFELLER IV TO WILLIAM HOGARTH, PH.D.

Question 1. Will NMFS be able to utilize scientific data from sources outside the agency (such as data from academic institutions) in their stock assessment process?

Answer. Yes. Magnuson encourages this. I believe this is a key to improving our fisheries independent data.

Question 2. How could collaborative research efforts between NMFS and fishing communities be improved to increase the amount and accuracy of stock assessment data?

Answer. Funds have been one of the problems with maintaining a good scientifically, defensible cooperative research program. With the regulations being required to rebuild the stocks, cooperative research becomes more important to obtaining the necessary fisheries independent data.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BILL NELSON TO WILLIAM HOGARTH, PH.D.

Question 1. Thanks for all your work on the *Deepwater Horizon* oil spill and for your testimony. What is your perspective on the fact that the reauthorization of Magnuson required a new Marine Recreational Information Program by January of 2009?

Answer. I think this is essential to obtaining an accurate count of the recreational catch. The recreational industry is huge in many states such as Florida, and is a vital part of the State's economy. It is critical to have accurate catch and effort data in order to conduct scientifically stock assessment.

Question 2. Does the lack of accurate data on recreational effort and catch hamper efforts to manage fisheries?

Answer. Absolutely.

Question 3. What could be done to improve fishery independent data, given the current fiscal constraints?

Answer. We can rely more cooperative research, but we must find a way to fund the fuel costs for the NOAA research fleet. The number of days at sea for surveys has decreased by 48 percent from 2008 to 2011 for NOAA vessels supporting fisheries missions. Priority has to be set on the economically important fishery surveys. See attachment 1.

APPENDIX 1

FY05–10 Accomplished DAS

Ship	2005	2006	2007	2008	2009	2010
Albatross IV	239	236	195	136	42	
Belle M. Shimada						37
David Starr Jordan	239	234	243	239	83	
Delaware II	215	222	159	197	214	148
Fairweather	211	164	177	165	176	192
Gordon Gunter	227	198	191	132	233	121
Ferdinand Hassler						
Henry B. Bigelow			39	161	182	111
Hi'ialakai	184	234	196	210	172	203
John H. Cobb	157	125	161	145		
Ka'imimoana	234	231	198	223	147	208
McArthur II	172	237	184	206	189	211
Miller Freeman	218	232	243	202	135	171
Nancy Foster	236	185	191	193	158	137
Okeanos Explorer				59	132	191
Oregon II	233	227	174	229	217	40
Oscar Dyson	120	130	212	230	215	203
Oscar Elton Sette	238	232	220	218	212	200
Pisces					11	131
Rainier	212	190	172	192	183	0
Ronald H. Brown	224	243	232	197	213	165
Thomas Jefferson	175	191	172	186	179	157
Total DAS	*3,534*	*3,511*	*3,359*	*3,520*	*3,093*	*2,626*
NMFS DAS	*1,988*	*2,012*	*1,974*	*2,044*	*1,733*	*1,331*
% NMFS	56.3	57.3	58.8	58.1	56.0	50.7

Yellow denotes ship under construction/conversion.
Red denotes ship permanently deactivated.
Notes: FY05—FY10 accomplished DAS includes program funded DAS in addition to base funded DAS. FY10 and FY11 DAS do not include reimbursable DWH response activities. FY11 and 12 are estimates based on FY11 draft Fleet Allocation Plan and FY12 President's budget request.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARIA CANTWELL TO WILLIAM HOGARTH, PH.D.

Question 1. When you were head of the Fisheries Services several years ago under the Bush Administration, what areas of Magnuson-Stevens implementation did you feel were the most challenging?

Answer. Recreational aspects because the fishery is extremely important but we did not have a credible program to collect accurate catch information. Most of the regulations were therefore, placed on the commercial industry. With some 500 species to be managed, it is fiscally impossible in my opinion, to adequately sample and conduct regularly scheduled stock assessments for all species.

Question 2. Could you specifically explain the need to improve our recreational fishery data? Does this continue to be an area where we need significant improvement?

Answer. The recreational catch in my instances can be as large or larger than the commercial catch for certain species. We simply do not have a reliable method to obtain the recreational catch, which is critical for the stock assessments. Inaccurate catch data have ramification on the stock assessment which could cause lower quotas and consequently reduction in jobs, etc. Even though the Magnuson reauthorization required a new recreational methodology and licensing of fisherman fishing in Federal waters, the program has not been implemented. It should be immediately.

Question 3. If Congress underfunds the National Marine Fisheries Service, will this translate into management, scientific, and economic challenges for our Nation's fishing industry? Is it possible it could result in lost jobs?

Answer. In my opinion NMFS is already underfunded and by not having necessary data to conduct stock assessments and rebuild stocks we are not realizing an approximately $2 billion increase in fishing revenue. In the Gulf of Mexico for example we do not have background information of many species, are not conducting sufficient surveys to provide timely-stock assessments. The number of days at sea per NOAA research vessel has declined from about 195 in 2000 to 153 in 2011 projected and even lower for 2012. These vessels could operate 240 days per year. The total number of days for the vessels supporting fisheries mission has decreased 48 percent from 2008 to 2011, which in turn translates into less fisheries independent data, etc, to conduct the stock assessments which are critical for implementing effective regulations to rebuild stocks and prevent overfishing. Also, lack of funding increases the uncertainty in the stock assessments which results in lower catches and greater economic losses to the fishing industry and communities. Without accurate and essential data the Agency must respond conservatively which means reduced catches and loss of jobs, etc throughout the industry.

Question 4. Do you believe that there are currently major fisheries being managed in the U.S. that need more data and better science?

Answer. Absolutely. Critical need for more fisheries independent data and more frequent stock assessments.

Question 5. Do we have any data-poor fisheries that require major investment? If so, which fisheries?

Answer. Wahoo, mahi-mahi, tuna, snapper/grouper, sharks, mixed stock species, groundfish to mention a few. Data poor stocks need to be addressed as all data poor stocks are not recreationally or commercially valuable, but are important from ecosystem perspective. Many of these species spend a small amount of their life in U.S. waters.

Question 6. How can the Fisheries Service gain credibility with fishermen in those fisheries that have had a history of data deficiency?

Answer. Create program such as cooperative research that utilizes industry, have regular sessions with fisherman to receive input and discuss and exchange ideas. Improve, data collection and improvement stock assessment schedule to provide more frequent updates to fishermen.

Question 7. What are the long-term consequences of NOT investing appropriately in the science we need for those fisheries?

Answer. Over restrictive regulations, stocks that are not rebuilt and a loss of revenues of approximately $2 billion annually to the fishing industry. Greater uncertainty in science, increased disagreements with fishing industries, both recreational and commercial.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. OLYMPIA J. SNOWE TO WILLIAM HOGARTH, PH.D.

Question 1. Do you believe there should be flexibility on the rebuilding timelines of some key "choke" stocks that are currently considered to be overfished, but where there is no overfishing occurring?

Answer. As you know, I was NOAA's Assistant Administrator for Fisheries when the Magnuson-Stevens Act was reauthorized in 2007. At that time, I reasoned that if strong controls on ending overfishing were front-loaded into rebuilding plans, and overfishing was avoided, that greater flexibility in the recovery process would follow for normal variations in fish stocks. Of course, the final version of MSRA retained the 10-year rebuilding time frames, but with significant exceptions. Those exceptions are for stocks where the life history would not allow rebuilding in 10 years, or where international fisheries agreements must reflect differing laws and systems occurring in each nation. In the case of New England fisheries, a number of stocks such as Georges Bank cod, Acadian redfish and Atlantic halibut have the exceptions for longer time lines allowed under the Act because of their life histories. In the case of other Georges Bank stocks (*e.g.,* yellowtail flounder) their bilateral status allows them longer time frames for rebuilding also consistent with MSRA. As demonstrated in the 2010–2011 fishing year, given proper incentives, fishermen can avoid weak stocks to the extent that they do not constrain the fishery into premature shut downs. Thus, with respect to the time lines for rebuilding, these do not seem to be the limiting factor in allowing the fishery to achieve its annual optimum yields. Rather, I think there needs to be greater emphasis on gear technology development

to avoid weak stocks, combined with greater real time bycatch information shared by the fishermen, similar to the situation in the Alaskan fisheries. With only 1 year of experience in the current New England groundfish management system I think there should be a careful review of what works and what needs improvement with the goal of maximizing harvests under the species TACs that prevent overfishing. Managing mixed-species fisheries under stock rebuilding plans is one of the greatest challenges of fisheries management because of the different rates of rebuilding of productive and less productive species. Our challenge is to rebuild the diversity of the fisheries, which is one of the factors that sustained them for hundreds of years.

Question 2. Are there any modifications to the Act of further guidance that could assist in achieving the recovery of species in a cost-effective manner?

Answer. The Magnuson-Stevens Act is without doubt the premier fisheries law in the world. Many recent global reviews have emphasized the importance of having clear definitions of who much fishing is too much and for clear standards for fishery management plans, such as those in MSRA. The recent reauthorization in 2007 will accomplish what we all think is its most important goal—to finally rid the country of overfishing and to set all stocks on a path to rebuilding. However, considerable challenges persist. I think that there are two areas in which we must continue to emphasize.

First, the MSRA has as its key, the use of best science available with which to manage the fisheries. While the agency and the states are doing the best they can with what they have, we need to increase the amount, quality and timeliness of scientific information available to the Councils and the Secretary. In some regions of the country, stock assessments only occur every 5 years or so, and even then, limited or no fishery independent data are available. Similarly, the use better information on recreational fisheries, as called for by the National Research Council, needs to be operationalized by NOAA/NMFS and the states. Increased funding for stock assessments, fisheries dependent and independent data collection using a cooperative research framework are imperative—the credibility of the management system relies on high quality, timely scientific information.

Second, while ending overfishing in the United States will provide more seafood for our domestic and export markets, the United States still imports over 80 percent of its seafood. Some of this comes from nations with much less restrictive management controls than ours. We have an obligation to assist in increasing global fishery management effectiveness. Programs to identify and help countries eliminate illegal, unregulated and unreported (IUU) fishing, combined with strong partnerships in regional fishery management organizations (RFMOs), and technical assistance to other countries will help assure the sustainability of world fisheries and make sure that U.S. fishermen compete on a level playing field. A strong national policy on aquaculture would also go a long way in increasing the consumption of domestically-produced seafood.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARIA CANTWELL TO STEPHANIE MADSEN

Question 1. Has the At-Sea Processors Association ever lobbied Congress to increase a fish catch limit that was set by the North Pacific Council?

Answer. No, APA has never sought support from Congress to influence the setting of annual catch levels set by the North Pacific Council.

Question 2. How often, if ever, do fishermen from the North Pacific lobby Members of Congress to increase fish harvest quotas? If not, why not?

Answer. I am not aware of any instance in which commercial fishing interests participating in federally-managed fisheries in waters off Alaska lobbied Members of Congress to influence or supersede the annual catch limits recommended by the North Pacific Council and approved by the Secretary of Commerce. Commercial fishing interests participate fully in the public process by which annual catch limits are set. NOAA Fisheries' stock assessment experts freely share data from stock surveys. NOAA Fisheries' scientists are accessible and open to discussing their findings with interested industry members.

Stock assessment reports are peer-reviewed by two panels—the North Pacific Council's Groundfish Plan Team and Scientific and Statistical Committee (SSC). The Plan Team and SSC are comprised of Federal, state and independent scientists. Both scientific panels recommend to the Council a safe harvest limit and the Council then determines a catch limit at, or below, the safe harvest limit proposed by the panels. It simply would not be credible for the industry to come to Congress to argue for an annual catch limit that contradicts the findings of the stock assessment author(s) and the science panels or the decision of the Council.

Question 3. It seems that fishermen on the east coast and in the Gulf of Mexico approach their Members of Congress frequently asking for political intervention to raise fishery quotas and total allowable catch. Why do you think this difference exists between the East and West coasts?

Answer. While I don't have firsthand knowledge of the situation on the east coast and Gulf of Mexico, in conversations with colleagues in the industry there appears to be a lack of confidence in NOAA Fisheries' stock assessment work on the east coast that contrasts starkly with our experience in the Alaska region. Uncertainty is a part of stock assessments and the data is always open to interpretation. If the industry does not have confidence in the data collection and analytic processes, then it is more likely to seek to have its interpretation of the science adopted through the political process.

Question 4. If the North Pacific pollock fishery were managed with little data and poor science, how do you think it would change the management dynamics in your sector?

Answer. The existing healthy, collegial working relationship between stakeholders, including the commercial fishing industry, and NOAA Fisheries and the Council would certainly be strained if there was great uncertainty in the science across a range of management issues. Assuming that a precautionary, ecosystem-based management approach was still applied in a world of much greater scientific uncertainty, one certainty is that economic returns would be lower as catch levels would be reduced to account for the uncertainty.

*Question 5.*How important is it to your fleet and the jobs in your industry that Congress appropriate sufficient funding to the Fisheries Service to conduct fisheries surveys, collect fisheries data, and conduct thorough stock assessments?

Answer. It is critically important that Congress continue to fully fund fisheries surveys, data collection, and stock assessment work. Federal groundfish fisheries in waters off Alaska account for about 40 percent of all fish landed annually in the U.S. The fishery is worth more than $1.0 billion at the primary processing stage. The current modest Federal investment in basic science results ensures abundant fishery resources that sustain a very healthy and important commercial fishing industry in Alaska and the Pacific Northwest. We are already quite concerned about the lack of funding for cooperative research and for NOAA survey ship time, and we urge Congress to fully fund core NOAA fisheries science programs.

Question 6. From your experiences in the North Pacific, does implementation of catch shares sometimes lead to consolidation?

Answer. Yes. In the North Pacific region, catch share programs have been implemented in the halibut/sablefish fishery, the crab fishery, the Alaska pollock fishery, and the non-pollock groundfish fishery. In each instance, while the stocks were managed at sustainable levels through science-based catch levels and rigorous catch accounting requirements, the race to catch the available quota resulted in overcapitalization of the fisheries. The over-investment in vessels and processing facilities versus the return on that investment was not economically sustainable. Catch shares allowed less efficient producers to sell their shares and exit the fishery, allowing the fishery to achieve a rational balance between the value of the catch and the investment in production.

The North Pacific Council, however, has implemented rules to place upper limits on how much of the annual catch any one entity can control. Each catch share fishery has different characteristics, and the Council has tailored consolidation limits to meet socio-economic goals for each individual catch share program.

Question 7. How do catch shares typically impact fishing jobs? Do fishing jobs get eliminated? Do they change in terms of stability and whether they are seasonal or more permanent in nature?

Answer. There is often a difficult transition period when a catch share program is implemented as excess fishing and harvesting capacity is retired through the economic rationalization of a fishery through catch shares. Jobs are often lost in this transition. However, the experience of the catch share programs in Alaska is that the jobs that remain pay higher wages, are more stable and secure, and safer. With fishing capacity reduced, fishing seasons last longer. Crewmembers, whose pay is generally based on the value of the catch, see incomes rise as the remaining vessels have more days at sea. With a guaranteed share of the catch assigned to a vessel, jobs are more stable. If there is an operational problem with the vessel, repairs can be made and the vessel can return to the fishing grounds without sacrificing production. It is very much our experience in Alaska that while there are generally fewer jobs, the jobs are better.

Question 8. You represent a sector that is big and corporate in nature, and some fishermen fear that catch shares will mean the end of small, family fishing busi-

nesses. In your view, do catch shares inevitably only help the "big guys" and hurt the "little guys"? Does it depend on how a given catch share system is designed and structured?

Answer. Good catch share programs are designed to accomplish publicly stated goals for managing both the fish stock and the fishery participants. In Alaska, prior to having a catch share program, the halibut/sablefish fishery was conducted by smaller longline vessels operated by fishing families. That is pretty much the situation today almost 20 years after the halibut/sablefish catch shares program was implemented. The difference is that there are more full-time fishermen and fewer part-time fishermen, the fishery is no longer overcapitalized, and the season lasts 6 months instead of 2 days. It is safer and more professional, but the fishery is still conducted by the "little guys." In the Alaska pollock catcher/processor sector, we still have single vessel operators as well as larger companies that own multiple catcher/processors. To some extent, consolidation limits that are part of the program design help preserve diversity in the fleets, but just as important is that a rational management system rewards efficient operators regardless of the size of their companies.

Question 9. Can you please explain how the implementation of catch shares impacts fishing safety?

Answer. The most obvious safety benefit of catch share programs is that because a harvester is assured a percentage of the catch, the harvester is not penalized for staying in port (or returning early to port) for weather-related reasons or if a mechanical problem develops on the vessel. Also, ending the race for fish eliminates any incentive for crewmembers to work beyond their limits where long hours or exhaustion can lead to workplace accidents.

Question 10. Have catch shares had a positive impact on fishing safety after they have been implemented in the North Pacific?

Answer. Yes. The small boat halibut/sablefish fishery is much safer now that participants are not locked into two one-day openings per year where they feel compelled to fish regardless of weather conditions. Also, vessel owners can more easily attract experienced, professional crewmembers under the catch share program, and that undoubtedly promotes a safer operating atmosphere. There have been similar improvements in the safety record of the crab fleet following implementation of a catch share program. The Alaska pollock fleet, which operates larger, stable trawl vessels, maintains a good safety record; improving vessel safety was not a factor for the pollock fleet in pursuing a catch shares program.

Question 11. From your experience, in what ways do catch shares change fishing behavior that impact safety and environmental stewardship?

Answer. One immediate benefit of creating fish harvesting cooperatives for the catcher/processor fleet was implementing an information sharing system in which each co-op member shared catch information with other members. This data sharing provided vessel captains with real-time information about areas where higher catch rates of non-target species could be expected, so vessel captains knew to avoid such areas. In fact, co-op members entered into legally binding contracts to voluntarily close such "bycatch hotspot" areas. Such an approach is feasible under a catch share program since a vessel captain can take the time to search for other productive fishing grounds when the vessel's share of the catch is assured.

Question 12. Have you ever seen a catch share system that made safety problems worse, or is the impact always a positive one?

Answer. No, I am not familiar with any catch share program that created safety concerns. As noted above, improving safety was a major impetus to developing catch share programs for halibut/sablefish and crab, but it was not a significant factor in rationalizing the Alaska pollock fishery. If there were improvements in safety realized in the pollock fishery, it was from creating stable, higher wage jobs that increased retention rates among employees, enhancing the experience and expertise of crewmembers. I can think of no scenario where rationalizing a fishery exacerbated safety issues.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. OLYMPIA J. SNOWE TO STEPHANIE MADSEN

Question. You raised concerns about the current stock assessments and the level of uncertainty in management decisions of the groundfishery. While clearly we must have additional cooperative research, increased surveys to inform stock assessments, and more baseline assessments, since there will always be some uncertainty in these assessments, the broader question is how we incorporate scientific uncertainty

into these management decisions. Deferring to caution and reducing total allowable catch can destroy a community, such as Prospect Harbor, Maine, which lost its supply of herring for a sardine factory. At the same time, we have seen the negative consequences of overfishing, and we should not use uncertainty in the data as an excuse to continue to overfish. How would you recommend that the Councils and NMFS incorporate scientific uncertainty into fisheries management decisions? Do you believe that the economic conditions of specific fishing communities should be also considered in these decisions, and, if so—how?

Answer. While there are technical aspects of incorporating scientific uncertainty into stock assessments that I am not qualified to speak to, as a former Council Chair, I looked to the Magnuson-Stevens Act National Standards to guide my decisionmaking. National Standard #1 mandates that conservation and management measures achieve optimum yield, and National Standard #2 requires use of the best available science in the decisionmaking process. The first standard emphasizes the importance of maintaining a healthy fishing industry while protecting the resource from overfishing, and the second standard recognizes that the science need not be perfect, but the best available. From time to time, we might lose focus on the importance of food production and job creation in fisheries. That said, I don't want to suggest that fishery managers should be less precautionary based on the economics of the situation. I believe we need to strike the appropriate precautionary balance in setting catch limits regardless of the economic circumstances facing a particular fishing community.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN D. ROCKEFELLER IV TO VITO GIACALONE

Question 1. How specifically would you change the process by which catch allocations are determined, if not based on historical catch data?

Answer. *In my opinion, the initial allocation is the most critical consideration in the process of developing a plan to implement a catch share type of system*. To be consistent with MSRA, a plan should consider current investment in and reliance upon the fishery from both a fisherman participant level *and* a community/infrastructure perspective. A well designed plan should also strike a balance between the fisheries ability to harvest Optimum Yield (OY) in the near and long term along with assessment of the current capacity of the fleet as it relates to both near and long term achievement of OY.

That said, it would be nearly impossible to design an allocation method that could ignore historical catch data altogether and still accomplish the core objectives of minimizing disruption to the existing fishery and its capacity to attain OY.

On the other hand, in my opinion, it is equally impossible to meet the core objectives if the allocation method is based solely on historical catch data. Among the most fundamentally simple reasons for this I list below. These were applicable to my experience with the Sector Allocation method adopted in Amendment 16:

- If the Limited Access currency allocated in the fishery prior to the implementation of a new system (*i.e.:* Days At Sea limited by vessel Length and Horsepower) has been relied upon for permit valuations and recent fishing revenues and that currency is weighted at or near *zero* for the new allocations, the likelihood that the new allocation will cause substantial disruption to current participants is high and the range of impacts extraordinarily broad.
- If conservation mandates to End Overfishing and Rebuild fish stocks are the primary driver/purpose for the shift to a new system, the underlying fact is that the past participants in the fishery all contributed to Overfishing. If that same fishery chooses to allocate access to the future fishery using Historical Catch Data only, the message and practical result of that policy decision is to reward those who contributed most to the Overfishing of each stock subject to overfishing in the past will be rewarded highest allocations the rebuilding period including that same proportionally higher share of the fully rebuilt fishery.
- *However*, it is also extremely important to recognize that the participants who have contributed most to the historical catch performance of the fishery are also those who are likely to be most dependent upon the fishery, have substantial investment in the fishery and are those who contributed most to their port infrastructures that are dependent upon the fishery in question. If these high performing participants were gutted by an inadequate initial allocation scheme which ignored the reality that historical catch data must be a critical consideration, the disruption to the fishery would be substantial and patently unfair.

All of this is further complicated when an initial allocation for a multi-species complex must be developed due to the species leveraging dynamics associated with harvesting opportunities of healthy stocks being constrained by weaker stock ACLs (Annual Catch Limits).

In direct response to your question, Senator, with regards to a specific recommendation, I have often suggested that as a strong supporter of the Regional Council process, I believe initial allocation decisions and alternatives development should receive assistance from a national body of experts to remove individuals with a direct interest in the outcome from the unavoidable appearance of conflict and to create a base of expertise in this most critical issue for the future of U.S. fisheries. Specifically, an allocation of future access to a fishery should have performance and accountability incentives built in which create promise and opportunity based upon participants performance in the new system and far less weight on their performance in the past.

Question 2. You mentioned in your statement that one problem faced by the multispecies groundfish fishery is the restriction of catch based on the most vulnerable or "weakest" stock that is managed. Under the current management scheme, are fishers allowed to trade quota shares among different fish stocks?

Answer. In our fishery, members of the same sector can lease/trade quota of individual stocks in any amounts, to each-other. Further, one sector can do the same with another sector and do this on behalf of specific members. What cannot be done with the allocations from Amendment 16 is for a permanent transfer/sale of individual stocks. A permit must be sold as a complete package and is not separable. This is not a complaint. In fact, it is a constraint that is has an unintended but arguably beneficial public policy effect in that it may be preventing a higher level of consolidation that would otherwise occur if permanent transfers of individual stocks were allowable.

Question 2a. If not, would implementing such a system decrease fishery closures that result from exceeding annual catch limits for the weakest stock?

Answer. Since temporary transferability (through leasing) of individual stocks is allowable under the current rules the fishery is not experiencing closures due to weak stock constraints. However, the low allocations of Annual Catch Limits resulting from MSRA/SFA arbitrary rebuilding timelines is preventing Optimum Yield and constraining the fishery overall.

Question 3. You mentioned in your testimony that although your gross fishing revenue has increased since the implementation of the sector management system, your net profits have gone down due to increased costs. Which costs specifically have increased since the implementation of the sector management system?

Answer. The costs of LEASING quota necessary for the majority of the permit holders to meet breakeven or attempt profitability. Lease costs are now a dominant proportion of a vessels ex-vessel value which has radically altered the gross/net ratios for the business.

Question 3a. Are these costs directly related to the change in fisheries management system, or to other external factors such as an increase in fuel prices?

Answer. Yes. These costs are directly related to the change in the management system.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN F. KERRY TO VITO GIACALONE

Question 1. In your estimation, what is the biggest obstacle to the effective implementation of Amendment 16 in New England?

Answer. Arbitrary rebuilding timelines coupled with a lack of creativity and leadership with regards to sensible implementation of the MSRA by the secretary will continue to frustrate any effort to implement a plan that will achieve the mandates for rebuilding fish stocks and preserving a viable fishing industry.

The low ACLs for some stocks and the narrow distribution of the initial allocation are both products of a process that was not developed from the bottom up which means industry "buy-in" cannot be expected. The industry feels as though they have been left with no choice but to join a sector. This "Hobson's choice" scenario is not conducive to an effective implementation.

The sector system has been setup in a manner that places a tremendous amount of management, data collection, data processing and complex reporting burdens on the industry. Cumulatively, the costs of At Sea and Dockside Monitoring programs coupled with the enormous data and reporting requirements have created a system that is financially infeasible if these costs shift entirely to the industry. Currently,

the regulations spell out that industry must accept the burdens starting 2012–13. This threat must be addressed with a longer term approach or the system will fail under its own weight.

Question 2. In your statement you note that low ACLs for some stocks are choking the sector trading system. This is an issue that Senator Snowe and I, along with 23 of our colleagues, flagged for Secretary Locke prior to the beginning of the Fishing Year 2010. Specifically, we requested that the Secretary "promulgate an emergency regulation increasing the ACLs for groundfish—especially the five choke stocks—sufficient to minimize the risk of failure of the sector management while still preventing overfishing from occurring." Can you explain the effect a minor increase in the ACLs for choke stocks would have on the sector trading system?

Answer. Any increase in the ACLs for constraining stocks will have at least two profound and positive effects: (1) each permit holder would receive more in their base allocation which relieves the necessity to lease from others which effectively lowers the cost of those fishing trips and increases the profitability for crew and boat owner; and (2) when constraining stocks are increased there is a greater opportunity to harvest a higher portion of the healthier stocks which continue to be fished far below the allowable levels due to the constraining stocks.

Question 3. How would you characterize the ease with which quota can be traded both within a sector and between sectors?

Answer. I would say that the trading has been exceptionally easy considering this has been the first year. Although it is not easy to attain the quota most of us need for the price needed to be profitable, this is not a problem with the trading system but instead it is the lack of available fish at affordable lease prices.

Question 4. Beyond low ACLs, are there any major obstacles to an effective sector trading system in New England?

Answer. No. None that the industry couldn't overcome or improve upon ourselves. I have not seen a regulatory or administrative obstacle.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. OLYMPIA J. SNOWE TO VITO GIACALONE

Question 1. Your testimony points out that the rebuilding timelines mandated by the Magnuson-Stevens Act are essentially arbitrary deadlines without a relationship to the biological reality of any given stock. It seems to me that whatever timeline we choose for rebuilding will be influenced by "unknowable" variables, and that any management strategy under the Magnuson-Stevens Act needs to be informed by the best, and most recent, data we can collect. While we have to recognize that we will never know exactly how many fish are in the sea, I agree that it is essential that currently we have fisheries managed by flawed stock assessments.

If we were to manage stocks based on maintaining fishing mortality at maximum sustainable yield, like you suggest, how do you think this would change management of the groundfish in New England, for example?

Answer. The most important change would be to allow scientists and managers to implement a management strategy that achieves a more stable and predictable regulatory environment for the fishery to operate within, and most importantly, to achieve a much higher percentage of the optimum yield.

Because recruitment, growth, natural mortality and, consequently, stock biomass simply cannot be predicted with any reliability 4 or 6 years, much less 10 years into the future, the current approach of trying to achieve an arbitrary biomass target in an arbitrary time-frame is doomed to failure. It places a completely unrealistic demand on the scientific community to produce information and predictions at a level of precision that is beyond their capacity. It creates utter havoc for managers in the latter years of the rebuilding plan when it becomes clear that "we can't get there from here" in the remaining time without severe reductions in fishing mortality. This produces a wildly draconian and pointlessly disruptive regulatory environment at great loss of optimum yield and economic costs.

The implementation of a management strategy for groundfish based on hard TACs, output controls and intensive catch monitoring has eliminated any value that arbitrary rebuilding timeframes and targets may have had in the past. A simplified strategy based on maintaining the fishing mortality rate at a level that is some margin below Fmsy that reflects the true level of scientific uncertainty and both biological and economic risks will achieve what are the truly important goals of the Act. These goals are to prevent overfishing and to rebuild overfished stocks with the minimum of disruption to the fishery and fishing communities. And, this strategy

will place a realistic demand on the scientific community to produce the information needed to implement this strategy.

This is not just my view, but one held by many of the most distinguished fishery population dynamicists in the world including at least two highly-distinguished fishery biologists that are former NMFS Chief Scientists and Directors of the NE Fishery Science Center. Unfortunately, few have taken the time to understand the scientific realities underlying this strategy and so there is a natural but unfortunate suspicion that eliminating the 10-year rebuilding requirement in the Act will somehow gut fishery management. We greatly appreciate the fact that Senator Snowe is among those few that have taken the time to reach this understanding. It is time for all other fishery policy decision-makers in Congress and the Agency to become educated on this issue and amend the statute appropriately.

Finally, I would note that the recent legislation successfully championed by Senator Snowe to conform U.S. management to the management strategy applied by the U.S.-Canada Transboundary has the effect of making the transition from the arbitrary rebuilding time-frame approach to an Fmsy-based approach for three key Georges Banks stocks—yellowtail flounder, cod and haddock. We look forward to the success of this new management approach as a clear demonstration of its validity.

Question 2. Are there particular stocks that you have reason to believe would be better managed under this rebuilding regime?

Answer. All stocks in the groundfish fishery would be more successfully managed under an Fmsy-based management and rebuilding regime. Some of the most "underfished" stocks from which we realize a low percentage of the optimum yield today include Georges Bank haddock, pollock, and redfish. But, that is just today. This same situation could exist for virtually any stock in the future.

Further, at present the SNE winter flounder, Cape Cod/Gulf Of Maine yellowtail flounder, witch flounder (grey sole) and the white hake stocks are nearing the end of their rebuilding periods and are suffering from unnecessarily-low catch limits needed to achieve the arbitrary rebuilding target by the end of the arbitrary timeframe. But again, this scenario could occur for just about any stock at any time in the future. Such stocks might be reasonably healthy and could sustain much greater yields, but catches are severely constrained for no other reason but to reach a biomass target in a very short arbitrary timeframe. What's worse is the very real possibility that the target is simply biologically unattainable, but that fact may not reveal itself in time to avoid potentially irreversible damages to the economic infrastructure of the industry.

Question 3. You raised concerns about the current stock assessments and the level of uncertainty in management decisions of the groundfishery. While clearly we must have additional cooperative research, increased surveys to inform stock assessments, and more baseline assessments, since there will always be some uncertainty in these assessments, the broader question is how we incorporate scientific uncertainty into these management decisions. Deferring to caution and reducing total allowable catch can destroy a community, such as Prospect Harbor, Maine, which lost its supply of herring for a sardine factory. At the same time, we have seen the negative consequences of overfishing, and we should not use uncertainty in the data as an excuse to continue to overfish. How would you recommend that the Councils and NMFS incorporate scientific uncertainty into fisheries management decisions?

Answer. Scientific uncertainty must be incorporated into fishery management decisions but what is missing is the evaluation of the costs to the fishery and communities of being wrong. Some level of biological precaution is appropriate. But, so is some level of economic precaution. Currently there does not appear to be a balance between those two.

Through its National Standard 1 guidelines, the Agency has incorporated what many feel are excessive levels of precaution. In the groundfish fishery, this has produced ACLs that are very difficult to justify and which are making it very difficult to implement the sector system which depends on a healthy allocation trading system.

In my view, part of the impetus for inserting such excessive precaution into stock assessments and projections is the fact that science is simply unable to meet the demands of the current statutory approach of setting rebuilding goals and trajectories so far out into the future. Given the profound uncertainties of wild fish population dynamics, it is simply not possible to predict what the biomass of any stock will be 10-years into the future at the level of precision demanded by the statute. Consequently, scientists and managers feel compelled to reflect that uncertainty in their stock assessments, projections and regulations.

As I explained above, the alternative is to replace the current approach of trying to achieve an arbitrary biomass target in an arbitrary time-frame with an Fmsy-

based strategy that can accommodate those unpredictable uncertainties in recruitment, growth and natural mortality that have plagued groundfish management in recent years.

Question 4. Do you believe that the economic conditions of specific fishing communities should be also considered in these decisions, and, if so—how?

Answer. I believe Congress has already clearly spoken to this question when it adopted National Standard 8 championed by Senator Snowe in 1996. Yes, every decision that affects fishing communities must give full consideration to a serious analysis of the impacts of such decision. And, that analysis must be based on adequate scientific and economic information. It is not sufficient for the Agency to say it used the "best available" information if what is available is simply insufficient to do a proper analysis. If data is needed, then the agency should be compelled to gather it.

It is my view that in adopting National Standard 8 Congress intended to bring balance to the considerations that must be made in all fishery management decisions, but that this intent has not been adequately implemented by the Agency or the Councils. This has been for two reason—one is that Congress has not insisted on it through sufficient oversight, and second, because there is an insufficient effort to gather and analyze adequate information on economic and social impacts.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN D. ROCKEFELLER IV TO WILLIAM R. BIRD

Question 1. How far back in time do you believe it is appropriate to look when assessing whether a stock's abundance has increased, decreased or remains constant?

Answer. In assessing the status of a species of fish, it is appropriate to look as far back in time as the period for which reliable data exists, most importantly fishery independent surveys that can detect trends in abundance without the use of catch data.

Question 2. Why is the time-frame you specified above the appropriate one?

Answer. The southeast region has been largely ignored by the National Marine Fisheries Service and Congress when it comes to funding and implementing fishery independent data collection systems, data that is critical to better stock assessment. Only a very few surveys even exist in the region, thus making the task of assessing the health of these valuable fisheries much more difficult.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BILL NELSON TO WILLIAM R. BIRD

Question 1. Which coasts do you fish?

Answer. Both the Atlantic and Gulf of Mexico.

Question 2. Would you be willing to provide better information on when you fish and what you catch?

Answer. I would, and I believe many recreational anglers would as well. However, recreational license fees already provide significant funding for marine resource management, and managers must do a much better job of accounting for effort and catch by the general public.

Question 3. Are you discouraged that the Marine Recreational Information Program is not up and running yet?

Answer. Yes, and so are all concerned recreational anglers. While I would like for a better recreational data collections system to be in place, I understand it is a very complicated task. I believe it is better to take the time necessary to get the new data collection system right rather than implement it hastily. Producing the best possible recreational catch data should be the goal.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. OLYMPIA J. SNOWE TO WILLIAM R. BIRD

Question. You raised concerns about the current stock assessments and the level of uncertainty in management decisions of the groundfishery. While clearly we must have additional cooperative research, increased surveys to inform stock assessments, and more baseline assessments, since there will always be some uncertainty in these assessments, the broader question is how we incorporate scientific uncertainty into these management decisions. Deferring to caution and reducing total allowable

catch can destroy a community, such as Prospect Harbor, Maine, which lost its supply of herring for a sardine factory. At the same time, we have seen the negative consequences of overfishing, and we should not use uncertainty in the data as an excuse to continue to overfish. How would you recommend that the Councils and NMFS incorporate scientific uncertainty into fisheries management decisions? Do you believe that the economic conditions of specific fishing communities should be also considered in these decisions, and, if so—how?

Answer. Thank you for your follow-up questions. Perhaps I could have been clearer in my testimony. My concern about scientific uncertainty in management decisions is tied mostly to the many fisheries with significant participation by the general public for which no stock assessments have ever been undertaken, and those lacking recent assessments. Scientific uncertainty should always be a factor in fishery management decisions, and for fisheries that are overfished or undergoing overfishing, the uncertainty involved will usually dictate a conservative approach. On the other hand, in fisheries that are viewed as abundant or for which there is no evidence of any decline in abundance, an overly-cautious approach based simply upon scientific uncertainty could be needlessly drastic in its impact on the economic vitality and sustainability of our coastal communities.

Unfortunately for many communities, overfishing has resulted in economic devastation. Nonetheless, the economic condition of fishing communities can not take precedence over the rebuilding of overfished stocks. I believe the best management course in such situations is the implementation of the measures required to re-build the stocks coupled with government support programs such as equipment buy-outs and re-training in other fields to help sustain those communities.

UNITED STATES SENATE
Washington, DC, March 8, 2011

Hon. JOHN D. ROCKEFELLER IV,
Chairman,
Senate Committee on Commerce,
Washington, DC.

Hon. MARK BEGICH,
Chairman,
Senate Subcommittee on Oceans,
Atmosphere, Fish and Coast Guard
Senate Committee on Commerce,
Washington, DC.

Dear Chairmen Rockefeller and Begich:

Last year, fishermen from our home state of New York came to the Washington, DC by the busload to appeal for help from Congress. Commercial and recreational fishermen joined together with a bipartisan Congressional coalition calling for relief from fisheries regulations which are harming fishing communities. In particular, our constituents are concerned about the lack of flexibility and scientific data used in determining fishing quotas, and the National Oceanic and Atmospheric Administration's (NOAA) push for implementation of catch shares programs.

Since that rally, things have not gotten much better for these fishermen and their families. Our constituents in New York, for example, are now facing onerous regulations on black sea bass and scup harvest, fish stocks which are nearly or completely rebuilt, simply because the Magnuson-Stevens Fishery Conservation and Management Act (MSA) does not permit regulators to manage these fisheries in a way that allows the fish stocks to rebuild without driving hard-working fishermen out of business. Fisheries like black sea bass, scup and summer flounder are crucial economic resources for the coastal communities in our state and others. We fully support the goals of the MSA and so do our constituents and we believe that we must rebuild stocks and conserve resources for the long-term vitality of the environment. However, the fishing tradition is a way of life in New York that is under real threat due to the arbitrary timelines mandated by MSA for rebuilding fisheries. From Montauk, LI to the Hunts Point market in New York City, fishing represents hundreds of millions of dollars in economic output. But in recent years, the pressure of inflexible regulation has threatened this industry. And it's not just the fishermen who are hurt—tackle shops and marinas are closing their doors and, across Long Island, seafood restaurants are unable to serve fresh locally harvested fish.

We will soon reintroduce the Flexibility in Rebuilding American Fisheries Act, legislation which would allow consideration of the impact on coastal communities when determining fishery management plans. This modest change would allow for fish stocks to be rebuilt at a more gradual pace if the Secretary of Commerce finds this is necessary to minimize economic impacts to coastal communities. We believe this legislation offers a responsible solution, and we respectfully request that your committee examine this bill. We are confident that such reforms will be supported by

New York State's Department of Environmental Conservation, as they have supported this legislation in the past.

In addition to the need for greater flexibility in implementing the MSA, there is a tremendous need for more fisheries research to insure that regulators have the best data available to make management decisions. As you know, when there isn't enough good data for regulators, they must implement overly conservative quotas, which in turn hurts employment and industry in coastal communities. Last month, we joined Senators Hagan, Burr and Brown to express concern that NOAA has committed $36.6 million to encourage the adoption of catch share programs when it had not committed sufficient funds to adequately assess the stocks of our Nation's fisheries. The MSA expressly directs NOAA to assess the health of fishing stocks, but NOAA has not committed significant funding to fulfill this requirement in its budget. NOAA should first commit funding to carry out this important duty before providing funding for a new fishery-management tool that requires—and currently does not have—broad-based support from the fishing industry.

The recreational and commercial fishing industries generate billions of dollars each year and are central to America's history and culture. Honest fishermen work very hard to make a living in our state every day. For them and for our economy, we must institute fishery management programs that enhance the industry's vitality while protecting our natural resources. We urge you to carefully consider these concerns and we look forward to working with you to ensure the long-term health and vitality of American fisheries.

Sincerely,

CHARLES E. SCHUMER,
United States Senator.

KIRSTEN E. GILLIBRAND,
United States Senator.

PREPARED STATEMENT OF GORDON ROBERTSON, VICE PRESIDENT, AMERICAN SPORTFISHING ASSOCIATION

Thank you for the opportunity to submit written testimony for the record regarding implementation of the 2006 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The American Sportfishing Association (ASA) is the sportfishing industry's trade association, committed to representing the interests of the entire sportfishing community. We give the industry a unified voice when emerging laws and policies could significantly affect sportfishing business or sportfishing itself.

ASA also invests in long-term ventures to ensure the industry will remain strong and prosperous, as well as safeguard and promote the enduring social, economic and conservation values of sportfishing in America. According to the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), saltwater fishing alone contributes $82 billion to the Nation's economy creating employment for over 500,000 people.

Since its inception in 1933, ASA has understood that the foundation of the sportfishing industry and the broader sportfishing community is sound fisheries management that results in public access to sustainable fisheries. One of ASA's core tenets is to support this basic precept. Through the Federal Aid in Sport Fish Restoration Act, passed in 1950 at the request of the fishing industry, special excise taxes on fishing gear and boating fuel have contributed over $8 billion for fish conservation. From the industry's continuing support of this program, which constitutes the cornerstone of the states' fisheries programs, to a myriad of actions that promote and support essential habitat programs to efforts that maintain and increase access to fishable waters, ASA has steadfastly approached sportfishing's challenges and opportunities in a deliberate and collaborative fashion.

The saltwater sportfishing community and the sportfishing industry are currently facing an unprecedented set of challenges as a result of the 2006 MSA reauthorization. The current breakdown in Federal marine fisheries management is deeply rooted in the culture of the NOAA Fisheries, which has virtually ignored the recreational fishing sector in favor of the commercial sector. Recently NOAA has shown a new interest in addressing this, which we appreciate, but the inattention to recreational fishing over time, combined with new mandates included in the MSA 2006 reauthorization has led to major problems in need of significant and immediate action. Because of NOAA Fisheries' strict interpretation of MSA, and a lack of understanding of many culturally and economically important stocks, many popular and economically valuable fisheries are now being unnecessarily closed at an alarming

rate, taking anglers off the water and seriously harming businesses dependent on recreational fishing.

Roots of the Problem

Important amendments made to MSA during its 2006 reauthorization were intended to drive NOAA Fisheries toward more effective marine fisheries management and stock rebuilding. The MSA reauthorization included key provisions to end overfishing, set annual catch limits (ACLs) and accountability measures (AMs) for all stocks by 2011. These requirements were predicated on two critical assumptions:

- NOAA Fisheries would invest in proper fisheries management, including up-to-date and accurate stock assessments.
- NOAA Fisheries would invest in a method to capture catch data on which to base management decisions and anticipate potential problems in the fishery.

Neither of these assumptions was met. As a result, the recreational fishing community is now faced with massive fisheries closures, and the attendant job loss, because the appropriate investment in recreational fishery stocks, economic data and angler catch data was not made.

Saltwater recreational fishing has increased in popularity in recent years as people migrate to the Nation's coastal areas. Over the years, some state natural resource agencies have enhanced their fisheries and angler data, while NOAA Fisheries has done little to improve recreational fishing angler and stock assessment data. It's so "data poor" that the U.S. Commission on Ocean Policy has called for a substantial investment in fisheries data and stock assessments. Further, in 2006 the National Academy of Science called the Marine Recreational Fisheries Statistics Survey conducted by NMFS "fatally flawed."

Recreational fishing accounts for only 3 percent of the marine finfish harvested by weight, yet it produces 56 percent of the jobs from all saltwater fisheries. Unquestionably marine recreational fishing is a coastal economic engine that deserves an investment commensurate with the jobs and economic output it provides to the nation, not to mention the millions of hours of recreation it provides to 13 million saltwater anglers who contribute over $82 billion to the Nation's economy.

As required by the 2006 reauthorization of MSA, NOAA Fisheries has increased the regulatory measures applied to recreational fishing but has yet to improve either the data collection or its basic understanding regarding recreational saltwater fishing. When Congress reauthorized the MSA, it did so with the intention of ending overfishing—not ending fishing. However, NMFS is implementing the statute in a way that is unnecessarily shutting down sustainable recreational fisheries, primarily by:

- Shutting down entire multispecies fisheries, including healthy and valuable recreational stocks, in order to rebuild weaker stocks.
- Applying ACLs to each individual stock of fish, including many that do not have accurate, up-to-date stock assessments.

Challenges in the Southeastern U.S.

While regions across the country are laboring to meet the requirements of MSA before the end of 2011, this challenge is most acute in the Southeast. The South Atlantic and Gulf of Mexico are home to a multitude of complex fisheries and have historically received disproportionately low funding for science and data collection given the number of fish stocks and anglers in the region. With the deadline to end overfishing looming, the South Atlantic Fishery Management Council (SAFMC) and Gulf of Mexico Fishery Management Council (GMFMC) are now resorting to drastic measures to ensure overfishing does not occur.

Last year, the sportfishing community held its collective breath as the SAFMC considered options to close massive areas of the south Atlantic to all bottom fishing in order to address problems in the red snapper fishery. Because red snapper are considered severely overfished and are subject to bycatch when fishing the larger snapper-grouper complex, Amendment 17A to the South Atlantic snapper-grouper fishery management plan was introduced in 2010 by the SAFMC. This amendment proposed a nearly 5,000 square mile area closure off the coast of southeastern Georgia and northern Florida where fishing for all species in the snapper-grouper management complex would be prohibited. Closing healthy stocks in order to address problems in a single weak stock is a draconian approach and would have had dire ramifications for the sportfishing industry and coastal communities throughout the South Atlantic that depend on bottom fishing for much of their tourism revenue. Fortunately, a new assessment on South Atlantic red snapper was completed in De-

cember 2010 which indicated that the stock was healthier than originally projected and the bottom closure proposal was tabled.

While the sportfishing community let out a collective sigh of relief, it was with acknowledgement that the red snapper closure was only the first in a line of looming problems coming in the near future. In fact, at the same time that the bottom fishing closure to address red snapper was removed, a separate bottom fishing closure in depths 240 feet or greater was approved to address overfishing of speckled hind and Warsaw grouper. This closure, while smaller in scope, is having considerable impacts on businesses that manufacture specific equipment for these deeper water snapper-grouper and coastal economies that are supported by these fisheries.

In addition to the threat of multispecies closures, both the South Atlantic Fishery Management Council and the Gulf of Mexico Fishery Management Council are currently developing ACL proposals for numerous important recreational fisheries, which may result in severe limitations due to a lack of data. Because MSA requires that ACLs be developed for all fisheries, the Councils are currently pursuing options on species such as dolphin, wahoo and cobia that have no up-to-date stock assessments, and for which the only data from which to base decisions is landings. The Councils are currently developing precautionary and overly restrictive ACLs for these fisheries even though there is no indication that any of these species are in trouble.

Need to Restore Balance and Re-Inject Commonsense

The Nation's 13 million recreational anglers and the thousands of businesses that rely on healthy marine fisheries support rebuilding fish stocks in a way that is balanced with public access and economic impacts. Ending overfishing, maintaining reasonable access and sustaining economic activity are not mutually exclusive. The MSA contemplated a range of options for ending overfishing on fish stocks. However, NOAA Fisheries has historically managed recreational fisheries by proxy; waiting until a fishery is in trouble to implement management measures or full-scale fishery closures, which isn't fisheries management: it's crisis management. It can avoid the default closures only with adequate data and facts in hand and the agency needs the time to gather this information.

Through the leadership of Senator Bill Nelson and others, ASA and its partners in the marine sportfishing community pursued legislation in the 111th Congress to address the crisis in Federal marine fisheries management. ASA and others in the recreational fishing community will continue to pursue comprehensive legislation to give NOAA Fisheries the time, resources and guidance to reprioritize its responsibilities in order to properly implement the Magnuson-Stevens Act in the manner in which it was originally envisioned by Congress in 2006.

The way that MSA is currently being implemented will unnecessarily close healthy fisheries and cause tremendous damage to recreational fishing dependent businesses. The recreational fishing community fully supports ending overfishing, but believes it must be done in a thoughtful, science-based manner that balances socioeconomic considerations with conservation principles. The recreational fishing industry depends on abundant fisheries and access to those fisheries. We can have sound fishery management, recreation and a healthy business community built around sound fisheries. It is of the highest priority for ASA to work with NOAA Fisheries and Members of Congress to ensure that the needed data collection and stock assessments are in place before the data-dependent provisions of MSA are enacted. ASA looks forward to working with this committee to ensure that a commonsense approach is developed to meet these challenges.

To: Senator MARK BEGICH, Chairman
Oceans, Atmosphere, Fisheries, and Coast Guard Subcommittee
of the Commerce, Science, and Transportation Committee

cc: Senator John Kerry
Senator Brown
Senator Olympia Snowe
Secretary Gary Locke, Commerce Department

From: Citizens for Gloucester Harbor
Date: March 21, 2011

RE: MARCH 8, 2011, "ISSUES" HEARING ON THE IMPLEMENTATION OF THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT: COMMENTS

We are a citizens group from Gloucester, Mass who are concerned for our historic fishing community and the ability of our fishing families and the businesses they support to weather the regulatory storm they are currently facing.

It is widely accepted here that stewardship of our precious fish stocks and the creation of a sustainable fishery is in everyone's best interest. We are not driven by greed or immediate gratification, nor are we environmentally ignorant. We believe that the goals of ending overfishing and restoring and rebuilding fish stocks to sustainable levels can, and must, coexist with the preservation of the livelihoods and way of life of our relatively small boat fishermen and the community that is their homeport.

It is most disturbing to witness how current allocations are especially hurting the small boats that characterize much of Gloucester's remaining fleet. These small businesses have a multiplier effect in our community's economy as they are mostly family owned boats that are serviced and outfitted locally, with local crews who deposit their pay in local banks and shop in local stores. These businesses are important to our City's economic stability and its continuation as a hub port. Additionally, they are a critical part of our heritage and character as a community.

What is most disturbing is that some of the forces which are coming to bear on, or that have most significantly impacted the economic viability of our local fleet, are a part of a flawed process. It is one thing to have the economy and the heritage of a community inexorably altered for a greater cause, such as a sustainable fishery for future generations. It is quite another thing to be brought to your knees by inadequate or withheld science or by the sobering abuses detailed in Inspector General Zinser's Report. Accuracy, decency, transparency, and the current health of humans and their communities must be considered hand and glove with the saving of our fish stocks and the preservation of future economic gain. Current fiscal stability and the preservation of viable fishing communities must be considered now, in the ways in which the Magnuson-Stevens Act originally intended them to be.

A pattern of actions taken by NMFS in recent years has been directed at the consolidation of fishing fleets, in the guise of achieving greater economic efficiency in the pursuit of conservation goals. This single-minded focus is driving small, local boats out of business, and unless changes are made will eliminate the industry as we know it. Policies and activities that we believe subvert the intent of the Magnuson-Stevens Act include:

- Passage last year of a sector management system, which was implemented on May 1st, despite great concerns about its viability and necessity;
- Punitive enforcement measures (documented by the Department of Commerce Inspector General) that have forced boat-owners out of fishing;
- Inadequate and potentially inaccurate scientific that have had a history of underestimating fishing stocks;
- Failure to conduct adequate research and/or failure to properly utilize existing research results;
- Diversion of funds away from cooperative research and into policing efforts;
- Unnecessarily strict limits on fishing that exceed what is necessary for stock recovery;
- Shutting down an entire multi-species fishery once the quota for any one species fishery, although it is clear, that in practice, all species do not recover at the same rate.

In particular, the sector approach, as currently implemented, will inevitably lead to concentrated ownership. Larger vessels owned by outside investors will displace the smaller local family fishing business and local fisheries will be unable to compete. The effects on local fishermen, employment, and economic activity in local

ports, the safety of local fish stocks, and the long-term viability of ocean fisheries and ecosystems will be devastating.

Especially in New England, it is the fish caught, only hours before, by our small inshore day fishing boats for which our restaurants and markets are famous that will be most greatly impacted. An intentional destruction of this industry and replacement by large industrial ships that stay further at sea for longer trips would result in replacement of our fresh fishery with fish stored for days in ice or brine or frozen at sea. The policy of increasing efficiency by replacing small fishing businesses, both at sea and in small harbors ashore by a few larger concentrated industrial operations in a few large ports seems ill-advised in the present national economic and under employment crisis and will not enhance the sustainability of fishing stocks.

The history of economic rationalization, deregulation, and a singular drive for "efficiency" has had unintended and disastrous results in other economic sectors in the United States. The deregulation and subsequent collapse of financial markets is the foremost example of excessive reliance on free market ideology and "efficiency." Similarly, in agriculture, the ideology of free-market fundamentalism has led to devastated farming communities, unsafe and unhealthy food supplies, and toxic pollution.

Properly designed sector management can restore ecosystems and fisheries, protect local jobs, and secure safe and local food supplies, but only if the approach is based on principles of community-based management. As Dr. Elinor Ostrom (2009 Nobel Prize in Economics) and others have demonstrated repeatedly around the world, community-based management assures long-term sustainability of environmental, economic, and social values.

If perceived as a catch share system, as opposed to a temporary management measure, these goals will not be achieved. Therefore, we believe they ought to only be seen as a temporary management measure.

We particularly call attention to the fact that the National Marine Fisheries Service chose not to establish the sector approach according to the policies and procedures set forth in section 303A of the Magnuson-Stevens Act governing Limited Access Privilege Programs (LAPPs). LAPP would have required a review of proposals that would have been subjected to a very comprehensive and deliberate set of standards and process, where the interests of all parts of the fisheries, including fishermen, port communities, and other public interests and benefits would have been reviewed. The deliberate decision by the New England Fisheries Management Council (NEFMC) to develop a comprehensive fishery-wide sector allocation and management system that is not based on or consistent with MSA section 303(A) was largely based on ill-advised advice provided to it by NOAA through the NMFS Northeast Regional Office.

NOAA needs to recognize that potential sector contributions (PSCs) should not be considered quota shares for the purposes of buying, selling, and trading with any mid-term or long-term value. Nevertheless, because of confusion over the long-term status of PSCs, there is a danger in artificially inflated permit values. Local fishermen may be unable to pay higher prices for permits when they have to compete with speculative outside investors who are misinformed about the duration of the sector allocation.

We urge the Secretary of Commerce to take the following actions:

1. Issue a public notification stating that the non-LAPP status of Amendment 16 Sector Allocations and individual PSCs means the fishery is still open to allocation through a deliberate and free standing allocation amendment process. The statement should also make clear that PSCs are short-term management currencies analogous to Days at Sea and have no long-term economic value. PSCs do not have the same effect as quota shares, unless NEFMC initiates a fully LAPP compliant amendment in strict compliance with the LAPP requirements in the Magnuson-Stevens Act.

2. Amend the sector management program by adding measures to prevent excessive consolidation and outside investment.

3. Increase the Total Allowable Catch (TAC) limits, particularly on species that would otherwise shut multi-species fisheries down unnecessarily, but not to exceed levels considered "overfishing". This increased flexibility would sustain the local fishing fleets through the next few years of the rebuilding of sustainable stocks.

These actions are all within the discretion of the Secretary of Commerce.

We thank you for your attention to these requests and look forward to hearing: (1) when an additional hearing to address these matters will take place; and (2) what actions the Secretary of Commerce has taken.

Yours truly,
Citizens for Gloucester Harbor
Peter Anastas, Writer
Ann Banks, Board Member, Gloucester Maritime Heritage Center
Damon Cummings, PhD, Naval Architect
Henry Ferrini, Documentary Filmmaker
Jeanne Gallo, PhD, Social Ethics
Jay Gustaferro, Lobsterman, Former Gloucester City Councilor
Marcia Hart, RN
Ann Molloy, Neptune's Harvest Organic Fish Fertilizer Company
Valerie Nelson, PhD, Economics, Former Gloucester City Councilor
M. Sunny Robinson, RN
Angela Sanfilippo, Gloucester Fishermen's Wives Association

E2—ENVIRONMENTAL ENTREPRENEURS
San Francisco, CA, March 8, 2011

HON. JOHN D. ROCKEFELLER IV,
Chairman,
Senate Committee on Commerce,
Science, and Transportation,
U.S. Senate,
Washington, DC.

Hon. KAY BAILEY HUTCHISON,
Ranking Member,
Senate Committee on Commerce,
Science, and Transportation,
U.S. Senate,
Washington, DC.

Hon. DOC HASTINGS,
Chairman,
Natural Resources Committee,
U.S. House of Representatives,
Washington, DC.

Hon. EDWARD MARKEY,
Ranking Member,
Natural Resources Committee,
U.S. House of Representatives,
Washington, DC.

Dear Senators Rockefeller and Hutchison and Representatives Hastings and Markey:

As members of Environmental Entrepreneurs (E2), a national community of 850 business leaders, we ask you to stay the course in ending overfishing and rebuilding our Nation's valuable commercial and recreational fisheries. This is a historic moment in the stewardship of our oceans. In 2006, Congress amended the Magnuson-Stevens Fisheries Conservation and Management Act (MSA), our Federal fisheries law, with broad bipartisan support to require an end to overfishing through the use of science-based catch limits. These requirements are currently being implemented by regional fishery management councils around the country and we are on the verge of making unprecedented progress in building long-term sustainable fisheries for this Nation. This is a vital economic initiative, which will add jobs and wealth in coastal economies around the country. We urge you to reject calls to weaken the law and turn back the clock to the short-sighted and unsustainable fishery management practices of the past.

E2 works to promote thoughtful environmental policy that grows the economy. We are entrepreneurs, investors and professionals who collectively manage nearly $90 billion of venture capital and private equity. Our members have started over 1,100 businesses, which in turn have created over 500,000 jobs.

Halting overfishing and rebuilding depleted stocks has been an issue of concern to E2 for many years. For example, in 2005, E2 sponsored a study of 22 commercially valuable overfished stocks that found that the economic value of these stocks if they are allowed to rebuild to sustainable levels is nearly three times the value of the depleted, overfished annual harvest.[1]

The current economic value of the Nation's marine fisheries is quite substantial. The commercial fishing industry contributed more than $38.4 billion to the gross national product in 2009.[2] Direct expenditures by saltwater anglers totaled $8.9 billion in 2006, supporting about 300,000 jobs and $20 billion in economic activity per

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[1] U.R. Sumaila *et al.*, "Fish Economics: The Benefits of Rebuilding U.S. Ocean Fish Populations," FISHERIES ECONOMICS RESEARCH UNIT, FISHERIES CENTRE, UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER, B.C. (October 2005), available at *<http://www.e2.org/ext/doc/2005%20Fish%20Economics.pdf>*.

[2] NMFS FISHERIES STATISTICS DIVISION, "Fisheries of the United States, Statistical Highlights," available at *<http://www.st.nmfs.noaa.gov/st1/fus/fus09/highlight2009.pdf>*.

year.[3] Together this amounts to close to $60 billion in economic benefits to the Nation from marine fisheries, many of which are actually under-producing due to years of overfishing. This economic value will increase significantly as our fisheries reach healthy levels.

According to NMFS, rebuilding the Nation's fisheries would generate an additional $31 billion in sales and support an additional 500,000 jobs.[4]

Continued overexploitation of marine fisheries prevents the additional economic benefits of healthy fisheries from being realized. Of the 230 most valuable stocks monitored by National Marine Fisheries Service (NMFS), one-fifth of those assessed are subject to overfishing, while nearly one-quarter are overfished.[5]

Investing in the future productivity of the Nation's fisheries requires a commitment to catch levels that are based on the best available science and accountability measures that ensure adherence to these catch levels and trigger clear and predictable management responses if and when those catch levels are exceeded. This approach, as embodied in the current MSA, will pay dividends to the fish, fishermen, and the Nation in perpetuity. We urge you to support sensible and sound fisheries management policies by maintaining a strong MSA.

We appreciate your attention to this important issue.

Sincerely,

The following 218 E2 members have signed this letter:

Curtis Abbott (CA)
CEO, Lucesco Lighting Inc
Maryvonne Abbott (CA)
Dan Abrams (CA)
President/CEO, Cross River Pictures
Bill Acevedo (CA)
Attorney, Wendel, Rosen, Black & Dean
Clifford Adams (NY)
Managing Director, Coady Diemar Partners
Christopher Arndt (NY)
Patty Arndt (NY)
Principal, ONG Designs
Jay Baldwin (MA)
Partner, Wind River Capital Partners, LLC
Dora Barlaz Hanft (NY)
Environmental Science Teacher, Horace Mann School
Karl Batten-Bowman (CA)
Ed Beardsworth (CA)
Principal, Energy Technology Advisors
Lisa Bennett (CO)
Jeff Bennett, Ph.D (CO)
Founder, Big Kid Science
Fiona Bensen (CA)
Tod Bensen (CA)
Chairman, WildAid
Tony Bernhardt (CA)
Physicist; Angel Investor
Aron Bernstein (MA)
Professor of Physics, MIT
Maureen Blanc (CA)
Social Entrepreneur
Dayna Bochco (CA)
President, Steven Bochco Productions
Steven Bochco (CA)
Steven Bochco Productions
David Bowen (CA)
Consultant
Barbara Brenner Buder (CA)
CFO, VP—Operations, The San Francisco Theological Seminary
Diane Brinkmann (CO)
Alan Buder (CA)
Monica Burton (NY)
Dianne Callan (MA)
Independent Legal Consulting, Green Tech Legal
Pete Cartwright (CA)
CEO, Avalon Ecopower
Warner Chabot (CA)
CEO, California League of Conservation Voters
Steve Chadima (CA)
Chief Marketing Officer, TweetUp
John Cheney (CA)
CEO, Silverado Power, LLC
David Cheng (CA)
Senior Manager, Advisory, The Cleantech Group
Roger Choplin (CA)
Proprietor/Owner, Our Earth Music, Inc.
Diane Christensen (CA)
President, Manzanita Management Corp.
Brooke Coleman (WA)
Assistant Professor, Seattle University Law School
Ann Colley (NY)
Executive Director, The Moore Charitable Foundation
Catherine Crystal Foster (CA)

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[3] *U.S. Fish and Wildlife Service,* "2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation," Table 16, at 72 (2007), available at <*http://www.census.gov/prod/2008pubs/fhw06-nat.pdf*>; U.S. COMMISSION ON OCEAN POLICY, "An Ocean Blueprint for the 21st Century," Final Report, at 275 (September 20, 2004), available at <*http://www.oceancommission.gov/documents/full_color_rpt/welcome.html*>.

[4] NMFS, "MAFAC Catch Shares Presentation," at 6, available at <*http://www.nmfs.noaa.gov/ocs/mafac/meetings/2009_11/docs/mafac_catch_shares_presentation.pdf*>.

[5] NOAA FISHERIES, "Status of the Fisheries: 4th Quarter 2010 Update," available at <*http://www.nmfs.noaa.gov/sfa/statusoffisheries/2010/fourth/Q4%202010%20FSSI%20Summary%20Changes.pdf*>.

Consultant, Policy & Advocacy Consulting
Jane Cuddehe (CO)
Broker Associate, Coldwell Banker Devonshire
Michael Cuddehe (CO)
President, Seven Trust Advisors
Andrew Currie (CO)
Investor, Active Minds LLC
Tim Dattels (CA)
Managing Director, Newbridge Capital
Lynne David (VA)
Gordon Davidson (VA)
President, Davidson & Associates
Jayne Davis (CA)
Peter Davis (CA)
Retired Attorney
Rick DeGolia (CA)
Executive Chairman, InVisM, Inc.
Chris Dennett (OR)
Systems & Analytics Manager, Account Management, Regence
Heather Dennett (OR)
Harry Dennis (CA)
Pediatrician, Palo Alto Medical Clinic
Susan Dennis (CA)
Fine Arts Advisor, Self-employed
George Denny (MA)
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Sally DeSipio (OR)
Ted Driscoll (CA)
Venture Partner, Claremont Creek Ventures
Robert Earley (NY)
Principal, Armor Capital
Scott Elliott (WA)
CEO, MountainLogic
Bob Epstein (CA)
Co-founder, Sybase, New Resource Bank, Environmental Entrepreneurs
Christina Erickson (CA)
Founder, Green by Design
Rob Erlichman
Founder & President, Sunlight Electric, LLC
Lynn Feintech (CA)
Anne Feldhusen (CA)
Marketing Program Manager, Hewlett Packard
Kacey Fitzpatrick (CA)
President, Avalon Enterprises Inc.
Jon Foster (CA)
SVP Global Operations, Atempo
Karen Francis (CA)
CEO, Academix Direct, Inc
Nell Freudenberger (NY)
Rona Fried (NY)
President, SustainableBusiness.com
Matthew Frome (CA)
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Ken Gart (CO)
President, The Gart Companies
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Donna Geil (CA)
Teacher, Clovis Unified School District
Sam Geil (CA)
CEO, Geil Enterprises
Bonnie Gemmell (CA)
GoFavo
Rob Gemmell (CA)
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Devon George (NY)
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Diana Goldman (MA)
Founder, ICanPlanIt
Ken Goldsholl (CA)
CEO, Movidis, Inc.
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cc:

Senator Mark Begich, Chairman, Senate Committee on Commerce, Science, and Transportation; Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard

Senator Olympia Snowe, Ranking Member, Senate Committee on Commerce, Science, and Transportation; Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard

Representative John Fleming, Chairman, U.S. House Natural Resources Committee; Subcommittee on Fisheries, Wildlife, Oceans and Insular Affairs

Representative Donna Christensen, Ranking Member, U.S. House Natural Resources Committee; Subcommittee on Fisheries, Wildlife, Oceans and Insular Affairs

Secretary Gary Locke, U.S. Department of Commerce

Administrator Jane Lubchenco, National Oceanic and Atmospheric Administration

Chair Nancy Sutley, White House Council on Environmental Quality

FISHING RIGHTS ALLIANCE
St. Petersburg, FL, March 21, 2011

Senator MARK BEGICH,
Chairman,
Transportation's Oceans, Atmosphere, Fisheries, and Coast Guard Subcommittee,
U.S. Senate Committee on Commerce, Science, and Transportation.

Dear Chairman Begich and Subcommittee members:

Thank you for the opportunity for the Fishing Rights Alliance to comment on the recent U.S. Senate Committee on Commerce, Science, and Transportation's Oceans, Atmosphere, Fisheries, and Coast Guard Subcommittee hearing on implementation of the Magnuson-Stevens Fishery Conservation and Management Act. Two Fishing Rights Alliance Directors were present for the hearing.

The Fishing Rights Alliance, Inc. (FRA) is composed primarily of recreational anglers and includes charter captains, headboat operators and some commercial fishermen that fish the U.S. waters of the Gulf of Mexico, Atlantic and Pacific Oceans. FRA members are all good stewards of our marine resources and are engaged in the conservation and wise use of those resources.

Magnuson-Stevens was conceived as a defense against foreign interests exploiting our domestic fisheries. The FRA is concerned that it is now being used to reduce the nations fishing activity in a squeeze play designed to force the use of catch shares on our fisheries as the only tool that will allow SOME to continue fishing. This apparent blatant theft of our Nation's fisheries is un-American and needs to be stopped.

While NMFS claims it is committed to preserving and growing jobs, it continues to destroy jobs, communities, and our heritage. While NMFS claims "Magnuson, made me do it," the agency "continues to ignore parts of Magnuson that are "inconvenient," while embellishing other parts that lead to the draconian regulations promulgated by the agency. NMFS has ignored MSA's mandate of a new recreational data collection system. This should not come as a surprise, since NMFS has ignored reviews by the National Research Council in 2000 and again in 2006, both of which pointed out the flawed data collection and processing of the unreliable recreational catch and landing estimates and both of which specifically stated that the MRFSS was not to be used as an in-season quota monitoring tool.

An example of ignoring/embellishing MSA is NMFS' failure to have a recreational angler registration system operating by January 1 of 2009 while feverishly advancing the catch-reducing Annual Catch Limits on all species, even those with poor or non-existent data. Annual Catch Limits as promoted by National Marine Fisheries Service reduce previous harvest levels by 25 to 50 percent, then put "buffer levels" in to "slow down" fishing. This ignores the cyclical nature of the fish stocks. In some years, the stock is more abundant than other years, affected by bait supply, extreme weather events and other non-fishing factors. Catches, too, will fluctuate. Fishermen are penalized if catches fall by NMFS claiming that a reduced catch indicates an overfished stock The agency has repeatedly ignored the effect of regulations on the catch, instead using every instance as support for further restrictions to "protect the stock." Fishermen are also penalized if they catch more fish, which is mischaracterized as "overfishing." There is no "good" news from catch information.

NOAA Fisheries Assistant Administrator Schwaab admits missing the deadline for implementation of a new recreational angler registration. Yet his agency argues in court that it met its obligation. The FRA asks "which way is it?"

Senator Snowe spoke of NMFS' "antagonism, mistrust and dysfunction" and its "reckless and vindictive actions" that "undermine, harass and sometimes bankrupt fishermen." She was referring to the recent activities of the NMFS North East regional law enforcement group. Interestingly, the same terms can be applied to the current regulatory actions of NMFS South East regional office. Vindictive actions include a closure of Gulf recreational amberjack with 5 days notice, based on the fatally flawed MRFSS data being used as an in-season quota monitoring tool. When the National Marine Fisheries Service Southeast regional administrator was asked how far in advance he knew he was going to close Gulf recreational amberjack in 2009, he stated that he knew 60 days in advance but chose not to tell the recreational fishing community because he "did not want to hear us (recreational anglers) complain." The FRA finds this to be antagonistic, reckless and vindictive, to say the least. How long must we suffer the mismanagement of our fisheries by this agency?

Catch shares are opposed by nearly all recreational and most commercial fishermen in the United States. There are a few pro-catch share individuals who currently attempt to represent themselves as the face of commercial and recreational fishing. Nothing could be further from the truth. These individuals all have a financial stake

in the future of catch shares. Their activities are supported by nonprofit environmental groups who are acting on behalf of institutional investors that wish to be able to buy and sell the fishery. The same environmental group purchased pro-catch shares ads in a Washington D.C. magazine during the week of this hearing.

Senator Cantwell's comments regarding the Environmental Defense Fund pro-catch shares ad was indicative of her pro-catch shares position. The FRA urges the Committee members to take a long look at who really supports catch shares, who really is opposed to catch shares, and who is funding the blind, mad drive to a catch share system.

The opportunity to fish is what drives the recreational fishing sector. Bag limits, size limits and other landings restriction tools have the most affect on fish stocks while having the least effect on fishing opportunity. The FRA opposes the privatization of our public marine resources.

The FRA requests that all closures based on outdated stock assessments be reversed until such time as a current, reliable stock assessment can be completed and evaluated for each species.

Regulatory dead discards are hidden and ignored by catch share proponents. These same proponents inflate the dead discard estimates for non-catch share fisheries in an attempt to justify their theft of our public resource.

The FRA echoes Senator Rubio's concerns about $6 million being taken from Cooperative Research Programs and given to the catch share effort and the $11.4 million taken from the fisheries research management program and put into the catch shares program.

Why is data priority not reflected in the funding? Why are ACL's being pushed ahead of the data? Why are catch shares being funded with money that was designated for recreational fisheries data improvement? Who at NMFS will be held accountable for ignoring MSA?

The FRA also shares the concerns of Senator Nelson, who noted that MSA passed based on the data being current, accurate and up to date and that NMFS is using MSA in a way not intended by Congress. We urge the Committee to address the Senator's and our concerns that NMFS is not following the intent of Congress.

Congress should strongly consider repealing the closures that are hotly contested and seem to be contradicting what is seen on and under the water. Gulf Gag Grouper and Red Snapper as well as South Atlantic Red Snapper are the first species that come to mind.

The FRA urges the Committee to investigate how NMFS prioritizes the stocks to be assessed, as AA Schwaab's answer on this was evasive, to say the least.

The FRA was disappointed by the makeup of the panel that the Committee chose to interview. We feel the panel was heavily slanted toward the pro-catch share agenda, with no representation of those active in fisheries management on behalf of the recreational anglers. The FRA was encouraged by the knowledge of the Committee members as exhibited by their line of questioning.

The FRA thanks the Committee for their time and the opportunity to comment on this hearing.

Respectfully submitted,

DENNIS O'HERN,
Executive Director,
Fishing Rights Alliance, Inc.

March 21, 2011

Oceans, Atmosphere, Fisheries, and Coast Guard Subcommittee

I'm writing this letter in regards to the issues and motions being made at the NMFS Southeast Regional Gulf Council. There has been a perversion of the entire council process due to the political nature of how the council representatives are selected. It has become very apparent that the interpretation of Congress in its writing of the Magnuson-Stevens Act (MSA)has been skewed by the politics of the Governors appointing process. The MSA already has the flexibility and language needed for regional councils to properly manage the Nation's marine resources; however the MSA is supposed to ensure fair and balanced appointments. The Gulf Council is not providing fair representation to all fishery sectors. If the commercial fishery sector is to continue to thrive, we have to figure out a new way to fairly represent all of the fishery sectors that are governed by the council process. What the commercial sector has in the Gulf is clearly not fair or balanced. I'm substantially dependent on the commercial fishery and very concerned that if left unchecked the Gulf Council will continue to make bias management decisions. Decisions like re-allocating the

Nation's resource to an unaccountable recreational fishery that accounts for less than 5 percent of the Nation population.

The source of the problem is that the regional councils and the advisory panels that they appoint have become unfairly dominated by the recreational sector. The leading cause for this is that in the Gulf Council all the state chairs 5 total, that have automatic appointments that are not approved by the commerce secretary have now become recreational seats due to the nature of state politics. Recreational organizations have extensively lobbied each state Governor and their game commissions to have their respective candidates nominated . This has led to a total omission of fair representation due to the politics of the day. None of these groups care about the American consumer and their access to the Nations resources . The commercial sector knows that it has become very difficult to get involved in the AP process because our resumes are not fairly considered for AP Panels because the make up of the council itself leads to a distinct disadvantage getting commercial members the votes necessary to get put on the AP. The results of this bias has led to the regional councils finding it hard to recruit un-bias fishery scientist to the SSC panel at this point because of the influence of the recreational sector. Standard operating procedure approved by the council process has made minor and incidental fisheries violations a justification for removal or ineligible participation in panels. These same standard operating procedures for violations don't apply to the recreational sector, they are immune.

The current balance of the Gulf Council is an issue that needs to be addressed immediately. The present Gulf Council is so out of balance that is has had a significant effect on Allocation Issues, ACLs, Economic Impacts, Advisory Panels, Ad Hoc Panels, and Catch Shares that especially affect the Gulf of Mexico commercial fishermen. The commercial sector has legitimate issues about the balance of the Gulf Council. Alabama has not had a commercial representative for at least the past eleven years. There are currently three at-large appointment seats currently available, however even if they are all filled from the commercial sector, the council will still be would still be unbalanced when it comes to fair and equitable appointments for each stakeholder groups. The APs obviously needs to be examined closer for fairness. By reviewing the voting records of the regional gulf council that the members Congress will clearly recognize the bias. Even all five of the State Representative's vote recreational. The uneven Gulf Council either out votes or simply rejects the commercial fishery representative's motions.

Let me provide some specifics. At each of the last four gulf council meetings members of the commercial red snapper fishery have requested they form an Ad Hoc 5 year review panel to allow the commercial fishermen a way to provide input on the red snapper IFQ system; however, one year later the Gulf Council has yet to complete this request. Another example is fin-fish. Fin-fish are probably the most discussed issue at the council meetings but there has never been a commercial fin-fish fishermen appointed to the Gulf Council for over 20 years , that sir is a crime.

At the last Council meeting, this February 2011, I witnessed a gulf council member from the State of Florida who is a Florida CCA board member before his council appointment begin a discussion to re-address the recreational allocation to acquire an even larger percentage of the red snapper and grouper TAC. The recreational sector to date still has failed to implement accountability measures in compliance with MSA. Eleven years after the Council set up the split for king mackerel they came back and reallocated 5 percent to the recreational sector. They also reallocated 17 percent of commercial red grouper TAC 2 years ago by raising their aggregate bag limit of red grouper. Motion after motion is passed over to develop a real time accountability measure for recreational sector that mirrors the commercial sector.

When it comes to allocation, the Gulf Council simply picks and chooses from the years that help the recreational sector the most. They choose different years for different species to obtain an unfair advantage by using two different baseline years. Roy Crabtree strongly advised the Gulf Council not to use that method. I think he understood the backlash it could cause later when a case could be made against it. But the Chairman of the council who receives large research grants from CCA allowed the process to continue in spite of the regional administrators leadership to do other wise. Below are incidents that show these types of actions of the Gulf Council that need to be addressed:

- The Gulf of Mexico Fishery Management Council demonstrates unfairness to the commercial sector when it comes to ACLs or Accountability Measures. Over harvest by either sector for amberjack, triggerfish or grouper disallows that sector eligibility for a raise in their quota. It's not the same for red snapper though; the council did not apply the same measure for that species. We feel this is a double standard due to the fact that the recreational sector has over

harvested their quota of red snapper eighteen out of the last twenty 1 years. In many of those years the recreational fishery went 100 percent over their quota.

- The full potential of commercial fishery economic impacts had been devalued for years because of bad fishery management regulations mandated by the Gulf Council. Commercial Fishermen provide access for the Nation's consumer and using just red snapper alone that accounts for almost 3½ million meals for the Nation's consumer. According to NMFS less than 5 percent of the U.S. population accounts for saltwater anglers.
- In 2008 the commercial sector (Seafood Industry) generated $104 billion in sales impacts, and supported 1.5 million full and part-time jobs, while the recreational sector generated $58.9 billion in sales impacts and supported 385,000 full and part-time jobs, using 2008 as the baseline year. Now that is significant commercial fishery economic impact that the Gulf Council pays no attention to.

In conclusion, I think the Gulf Council already has the flexibility and language needed in MSA as it stands today. The IFQ red snapper commercial fishery is the most accountable, well managed and successful fishery management plan ever developed in the Gulf of Mexico. It has increased the optimal yields, reduced regulatory discards and is meeting the goals of MSA. The establishment of a red snapper IFQs working in conjunction with reduced size limits have allowed red snapper to be removed from overfishing status. We need more successful management plans for the other sectors. The recreational sector wants to open the MSA simply to reallocate the resource. They have had 31 years to develop a good Marine Resource Management Plan, but have failed to do so with their "business as usual" position of resisting a fishery management plan that still after 31 years has No Accountability. Successful fishery management is going to require a balanced representation from both sectors to achieve management goals that will reach optimum yield. The future of sustainable fisheries requires true stewardship of the resource.

Sincerely,

CAPT. GARY JARVIS,
F/V Back Down 2,
Back Down 2 Inc.

PREPARED STATEMENT OF BRUCE STEDMAN, EXECUTIVE DIRECTOR,
MARINE FISH CONSERVATION NETWORK

Chairman Begich and members of the Subcommittee:

On behalf of the nearly 200 member groups nationally who are dedicated to conserving marine fish and achieving sustainable fisheries, the Marine Fish Conservation Network (Network), I thank you for the opportunity to submit the following testimony for the record concerning the implementation of the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

NOAA and NMFS are responsible for the management and conservation of living marine resources within the U.S. Exclusive Economic Zone (EEZ), encompassing an area larger than the combined land area of all fifty states. Our nation's fisheries are among the many benefits provided by this vast territory, and they are managed as a public trust. Ending overfishing is essential to sustain those benefits for present and future generations. Implementing management measures that achieve the MSA's goals for sustainability will require ongoing cooperation and support from Congress, state and Federal agencies, regional fishery managers, fishermen and other public stakeholders. This Subcommittee's ongoing oversight is vital to ensure that regional fishery managers are complying fully with the MSA.

The Network's comments will focus on efforts to prevent overfishing, rebuild overfished stocks, use the best available science, and ensure that the National Marine Fisheries Service (NMFS) provides adequate guidance and technical support to the regional fishery management councils as they implement a system of annual catch limits (ACLs) and accountability measures (AMs) that will prevent overfishing in accordance with the MSA.

Preventing Overfishing, Rebuilding Overfished Stocks

Preventing overfishing and achieving sustainable use of fisheries resources for U.S. fishermen has been the goal of the MSA since its passage in 1976. National Standard 1 (NS1) of the Act mandates that "conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum

yield from each fishery."[1] However, the MSA's lack of explicit measures for preventing overfishing allowed unsustainable levels of fishing to continue and, as a consequence, many of the Nation's fisheries were depleted and in crisis by the 1990s. The inclusion of fishery management reforms in the Magnuson-Stevens Act (MSA) of 1996 were aimed at preventing overfishing and rebuilding overfished stocks in a timely manner, but fishery managers too often ignored the advice of scientists on fishing limits and there was still no explicit statutory requirement to establish a firm catch limit and stop fishing when the limit has been reached. The result was numerous instances of chronic overfishing that continued unabated year after year, a practice the Network documented in 2007.[2]

Ending overfishing was the highest priority of the reauthorized Magnuson-Stevens Act of 2006 (MSRA), a bipartisan legislative effort signed into law by President Bush in January 2007. The MSRA's approach to ending overfishing builds on and strengthens the 1996 amendments on overfishing because Congress believed that the basic provisions were sound[3] To close the loopholes which had allowed overfishing to continue in numerous fisheries, Congress adopted key recommendations from the U.S. Commission on Ocean Policy (2004) including the requirement to establish ACLs in all U.S. fisheries with AMs to ensure accountability for staying within the catch limits.[4] In addition, the MSRA requires each Council to maintain a Scientific and Statistical Committee (SSC) and requires each SSC to make fishing level recommendations for Acceptable Biological Catch (ABC), which serves as the upper limit on Council specification of an ACL.[5]

The intent of these new measures is to provide transparent accounting mechanisms for measuring compliance with the MSA's requirements to prevent overfishing and rebuild overfished stocks.[6] In addition, the MSRA also includes requirements for the establishment of a national saltwater angler registry and other measures to improve the quality of recreational fisheries data—critical priorities for the implementation of ACLs in recreational fisheries. Equally important, the MSRA reaffirms the existing rebuilding provisions for restoring overfished stocks, including the 10-year rebuilding timeframe, while retaining ample flexibility to extend the time in specific situations in which the life history of a fish or other circumstances make the 10-year schedule infeasible. It should be noted that, in 2010, fully half of the stocks in rebuilding plans had rebuilding target dates greater than 10 years.

In regions where a system of catch limits has already been implemented, and where accountability measures are in place, fisheries managers have successfully prevented overfishing and are rebuilding overfished stocks. Based on the final Status of Stocks update from NMFS in December 2010, however, it is clear that overfishing stubbornly persists in regions which have not employed hard catch limits in the past. Although there are fewer stocks subject to overfishing in 2010 than in 2006, and fishery managers continue to make progress in rebuilding overfished populations, overfishing was occurring on fully one in five of the major fish stocks assessed for overfishing in 2010.[7]

Although NMFS and the Councils still have much work to do to end overfishing, they are making significant progress in amending each fishery management plan (FMP) to comply with the MSRA's deadline for implementing ACLs and AMs in all U.S. fisheries by the end of 2011. A system of ACLs and AMs is already in place for all stocks subject to overfishing (completed in 2010), and implementation of ACLs for all other fishery stocks is well underway. With a system of ACLs and AMs in all U.S. fisheries, fishery managers will have a framework in place to achieve the MSA's goal of ending overfishing. Regularly evaluating the performance of ACLs and AMs to ensure success at addressing this chronic problem should be one of the Subcommittee's top priorities.

The results are clear: catch limits effectively prevent overfishing where they have been implemented and where accountability measures are in place to ensure that fisheries stay within limits. While there is always some risk of overfishing, successful fishery management councils have created a system that enables managers to adjust catch limits in a timely manner when new information indicates that adjustments are needed to stay within safe limits. Moreover, with the adoption of rebuilding programs that establish catch limits and accountability for staying within the

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[1] MSA Sec. 301(a)(1); 16 U.S.C. 1851.
[2] MFCN (2007), *Taking Stock, The Cure For Chronic Overfishing.*
[3] Senate Report 109–229 on S. 2012 (April 4, 2006), p. 23.
[4] MSRA Sec. 303(a)(15) (16 U.S.C. 1853(a)(15)), Senate Report 109–229 on S. 2012 (April 4, 2006), p. 21.
[5] MSRA Sec. 302(h)(6) (16 U.S.C. 1852(h)(6)).
[6] Senate Report 109–229 on S. 2012 (April 4, 2006), p. 21.
[7] See the NMFS 4th Quarter 2010 Status of Stocks Update, available at: *http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm.*

limit, overfished stocks have begun to recover—since 2007, 11 have achieved their rebuilding goals and another 10 have rebuilt to 80 percent of maximum sustainable levels.[8]

Congress should resist the temptation to micromanage the fisheries management process to achieve specific outcomes in catch-setting, although the Subcommittee should exercise its oversight authority to ensure that the MSA reforms aimed at ending overfishing and restoring overfished stocks are working as intended. Efforts to increase catch limits or extend rebuilding timelines through political intervention have failed to produce longterm healthy fisheries in the past and have often contributed to chronic overfishing that hurts, not helps, fishermen. The appropriate place for making such determinations is within the science and management processes established under the MSA, including the regular regional stock assessment workshops and peer review processes and the SSC review prior to making their fishing level recommendations for each regional fishery management council's ACL-setting process.

Accounting for Uncertainty and the Risk of Overfishing in the ACL-setting Process

Because all fisheries information is uncertain and there is always some risk of overfishing, an effective system of ACLs and AMs will require fishery scientists and managers to treat uncertainty explicitly when specifying catch limits. The revised NS1 regulatory guidelines for specifying ACLs and AMs (NMFS 2009) require fishery managers to take an approach that considers uncertainty in scientific information and management control of the fishery in the catch-setting process.[9]

Some critics of this approach to uncertainty have argued that the adoption of uncertainty "buffers" in the ABC- and ACL-setting process at the regional councils is overly precautionary to the detriment of fishermen. History advises that the failure to account for uncertainty at all has more often been the problem, resulting in risky fishing strategies such as setting a catch limit at the overfishing limit (OFL), a practice which virtually guarantees that the OFL will be exceeded. For this reason, science and policy recommendations have overwhelmingly recommended more explicit treatment of uncertainty and measures to reduce target fishing levels below the maximum allowable limits. The guiding principle is: *"The greater the degree of uncertainty in the assessment of stock status or in the ability to effectively implement management actions, the greater the difference between [catch] targets and limits should be."* [10]

In revising the NS1 guidelines to comply with the new legal requirements to specify ABCs and ACLs, NMFS says it sought to retain the principle of limit and target fishing levels in which targets are set sufficiently below the limits so that the limits are not exceeded.[11] But while the terms "ABC" and "ACL" were introduced in the MSRA as required elements of the catch-setting process and were intended as clear limits,[12] the new guidelines provide limited guidance on how to incorporate scientific uncertainty into scientific ABC recommendations or to address management uncertainty (in addition to any relevant Optimum Yield factors) when setting ACLs.

The Subcommittee should ask NMFS to provide additional details on how the Councils are proposing to address scientific and management uncertainty in the catch-setting process. At present, it appears that methods vary substantially from region to region and it is difficult to determine if uncertainty is being treated more thoroughly in some regions than others. Regardless of the approach in a particular region or fishery, the Network believes scientists and managers should address uncertainty and risk as transparently as possible in the ACL-setting process.

Use of Best Available Science to Comply with the MSA's National Standard 2

The MSRA materially strengthened the role of science in the fishery management process.[13,14] To ensure that a system of ACLs and AMs meets the MSA's National Standard 2 for "best scientific information available," it is hoped that the NMFS revised NS2 guidelines (currently in final rulemaking) will clarify the roles and responsibilities of stock assessment review teams, peer reviewers, SSCs and the Councils in the catch specification process. The NS2 guidelines should also include ex-

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[8] See NMFS Status of U.S. Fisheries, Report to Congress 2007–2009.
[9] 50 CFR § 600.310(b)(3).
[10] NMFS Stock Assessment Improvement Plan (2001), p. 15.
[11] See NMFS response to comments in the NS1 final rule, 74 *Fed. Reg*. at p. 3183.
[12] See MSA § 302(g)(1)(B) and MSA § 303(a)(15).
[13] 16 U.S.C. §§ 1852(g)(1)(A) and (B); 1852(h)(6).
[14] Senate Report 109–229 on S. 2012, April 4, 2006, pp. 6–7.

plicit procedures for compiling, evaluating and using the best scientific information available in the catch-setting process. Regularly updated Stock Assessment and Fishery Evaluation (SAFE) reports should be required for each FMP, so that all the information used for ABC- and ACL-setting is readily available to decision-makers and the public. Such clarifications of roles, responsibilities and procedures for using and presenting the best available scientific information used will go a long way toward instilling trust in the science, the process and the outcome.

Some critics of rebuilding plans and new ACL requirements, particularly in New England, have attempted to discredit the science used to set catch limits and have sought intervention by the Secretary of Commerce to increase ACLs and relax rebuilding requirements for overfished groundfish. Yet those status determination criteria and catch limits have been intensively vetted and peer reviewed through the established regional stock assessment and peer review process, the Stock Assessment Workshop/Stock Assessment Review Committee (SAW/SARC). Indeed, a 2009 Department of Commerce Inspector General's investigative report to Senator Snowe of Maine found that the science on which the fishing limits are based meets the MSA's "best scientific information available" requirements.[15] Circumventing the results of that process by political means would undermine and politicize the entire ACL-setting process. Such actions would also violate the MSA's requirement that fishery management actions be based on the best scientific information available.

Agency Guidance and Technical Support to Regional Fishery Management Councils

Establishing science-based recommendations for ABCs, ACLs and AMs that prevent overfishing will require each council to establish procedures for receiving SSCrecommended ABCs and making recommendations to NMFS for ACLs and AMs. Agency guidance on best practices for ACL-setting is critical to ensure that regions which are adopting formal catch limits for the first time can benefit from the experience of regions that already employ them.

Although the agency has decided not to pursue technical guidance on the development of ABC control rules to assist the Councils' SSCs in their deliberations, better agency guidance on the ACL-setting process in general is needed to ensure that best practices and lessons learned are available to all regional fishery scientists and managers as they amend their operating procedures and FMPs. In regions where catch-setting has been employed already, for example, a regular cycle of scientific and management review has been established to ensure that ACLs can be promulgated in a timely manner before the beginning of the fishing year for each fishery in the FMP. Providing guidance to the remaining Councils on how to establish an efficient, transparent catch specification process is essential.

The revised Federal NS1 regulatory guidelines on overfishing (NMFS 2009) provide flexible approaches to ACL-setting that can be tailored to meet the needs of many different fisheries and situations, including recreational and data-limited fisheries,[16] but NMFS must do a better job in communicating the options available to Councils. The February 2011 national ACL Science Workshop in Silver Spring, MD illustrated the importance of NMFS's role in convening regional experts involved in the ACL-setting process to share expertise, discuss best practices, and identify key needs and challenges in the regions. In general, NMFS should take a more hands-on and pro-active approach that seeks to avoid problems rather than waiting until they occur.

Finally, NMFS must ensure that basic scientific standards and practices are employed in all regions so that ACL specifications meet the MSA's requirement for the use of the best scientific information available in National Standard 2. Currently NMFS is completing rulemaking on revisions to the NS2 regulatory guidelines to clarify the roles and responsibilities of the regional stock assessment and peer review teams, the SSCs and the Councils in the ABC- and ACL-setting process. The Subcommittee should ask NMFS to provide an update on the status of the NS2 rulemaking, completion of which has been delayed considerably.

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[15] Department of Commerce, Office of Inspector General Investigative Report, *Letter to Sen. Snowe re: the Northeast Fisheries Science Center and the Quality of the Science Used to Determine Catch Limits for New England Commercial Fisheries,* Feb. 26, 2009. 42 pp.

[16] See NMFS response to comments in the NS1 final rule, 74 *Fed. Reg*. at p. 3183.

Conclusion

Overfishing is considered by many to be the single biggest threat to marine biodiversity and ecosystems worldwide,[17] but the complex biological, technological, economic and social dimensions of the problem have made efforts to prevent it exceedingly difficult. In the U.S., successive reauthorizations of the Magnuson-Stevens Act in 1996 and 2006 have established a responsive, adaptive, and flexible framework for addressing the problem and making good on the MSA's promise of ending overfishing at last. This is, ultimately, the only way to achieve the sustainability of America's marine fisheries resources so that present and future generations of fishermen may enjoy them fully.

Thank you for accepting our testimony,

BRUCE STEDMAN,
Executive Director,
Marine Fish Conservation Network.

PREPARED STATEMENT OF ART C. IVANOFF, CHAIR, SOUTHERN NORTON SOUND FISH AND GAME ADVISORY COMMITTEE

Mr. Chair and members of the Subcommittee, thank you for the opportunity to provide written testimony on the implementation of several key features of the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

Southern Norton Sound Fish and Game Advisory Committee (SNSAC) is composed of village representatives from Shaktoolik, Saint Michael, Stebbins, Koyuk and Unalakleet. SNSAC advocates on behalf of the villages for the conservation and use of fish and game resources.

Our testimony is brief. We will focus on: (1) Tribal consultation and Composition on the Regional Councils, in particular the North Pacific Fisheries Management Council (Council); and (2) Total Allowable Catch of Pollock in the Bering Sea Aleutian Islands. These are not problems, but opportunities to improve the process that will protect our national interests and the interests of Arctic-Yukon-Kuskokwim villages. Really, the interest of conservation is global in nature.

Composition of Regional Councils/Tribal Consultation

SNSAC has been engaged with the Council for a brief period of time, nearly 3 years. During this brief tenure, however, the experience and observation has revealed glaring and significantly problematic issues with the composition of the North Pacific Fisheries Management Council. The Council offers no voting seat for federally-recognized tribes. Alaska is home to 226 federally recognized tribes, nearly half the tribes in the United States. Without voting representation on the Council, the federally-recognized tribes cannot effectively advocate for the conservation issues that are pivotal to the survival of the cultural heritage and our subsistence way of life. We have sat on the side during Council meetings and deliberations with no opportunity to influence the process and no opportunity to help frame questions. It has been suggested that federally-recognized tribes work through the Governor's office using the appointment process. However, history has exposed a truculent relationship between tribes and states making an appointment to the Council improbable. Our analysis suggests that the system is broken.

The United States Constitution is the prime catalyst for developing tribal consultation. However, over the last twenty years, the efforts by the Council and the National Marine Fisheries Service have neglected the inclusion of tribes in helping shape policy and regulations. In fact, it has been repeatedly stated that the Council is exempt from tribal consultation. We believe the Council's to be an extension of the Federal Government and therefore obligated to engage in a government-to-government relationship with federally-recognized tribes. Consultation with federally-recognized tribes can be effective only, and we stress only, by being directly involved in the decision-making process.

Total Allowable Catch

SNSAC is keenly aware of the overall harvest on Pollock in the Bering Sea. Over the twenty years, the average harvest, we estimated, is 800,000 metric tons. The total allowable catch is based on science of the Pollock in the Bering Sea. With an extraction rate of nearly 1.6 billion pounds annually, we are compelled to ask the question, what impact does this have on the ecosystem? How do we calculate the need to ensure the ecosystem is capable of regenerating or the Pollock from regen-

[17] For instance, see: Pauly *et al.,* 1998; Jackson *et al.,* 2001; Pauly *et al.,* 2002; Myers and Worm 2003; Hutchings and Reynolds 2004; Ward and Myers 2005; Worm *et al.,* 2006.

erating with such an extraction rate? Are there other resources showing sign of stress due to overfishing? The MSA National Standards primary focus is "optimum yield" while attempting to prevent overfishing. *This is a complete contradiction in terms*. The shear nature of industry along with the composition of Regional Councils should leave little doubt overfishing will occur. Josh Eagle's report Taking Stock of Regional Councils suggests that the North Pacific fisheries discard more than 300 million pounds of bycatch annually. How do we prevent activity that profligate's resources at a phenomenal rate? After research, SNSAC concurs with Josh Eagle's report which suggest that the most important reform would be to separate conservation and allocation decisions, leaving allocation decisions in the hands of the Councils but giving responsibility for conservation decisions to a separate governmental entity. The Minerals Management Service underwent reform; we believe reform with the National Marine Fisheries Service and Regional Councils is also warranted. The concern today should focus not only on the overall harvest of marine resources, but other the looming giant impacting the health and productivity of our oceans, acidification.

One thing is for certain, the MSA allows for extraction, but allows very little for conservation. Language in the MSA relating to conservation is weak at best and without MSA amendments the marine resources will continue to spiral down. SNSAC encourages the total allowable catch to be based on an ecosystem approach verses a single species which is the current practice.

In closing, we are requesting changes to improve the MSA which will reduce waste, reduce the chance of overfishing and provide the federally recognized tribes with an opportunity serve to help make decisions.

Thank you for the opportunity.

March 22, 2011

Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard,
Committee on Commerce, Science, and Transportation,
U.S. Senate,
Washington, DC.

RE: MARCH 8, 2011 HEARING ON IMPLEMENTATION OF THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

Dear Chairman Begich, Ranking Member Snowe and Members of the Subcommittee:

On behalf of the Gulf of Mexico Reef Fish Shareholders' Alliance, please accept these comments for inclusion in the record of the March 8, 2011 hearing on implementation of the Magnuson-Stevens Fishery Conservation and Management Act ("MSA").

The Shareholders' Alliance is a leading organization representing commercial fishermen in the Gulf of Mexico who operate under catch share programs. We are avid proponents of catch share programs because we have experienced the economic and conservation benefits that these programs can achieve. We strongly support the $54 million in proposed funding for NOAA's National Catch Share Program in Fiscal Year 2012. We oppose recent efforts to prohibit fishermen from evaluating catch share programs as a management option because fishermen should have the flexibility to use whatever management tool they think is appropriate to manage the fisheries in which they are engaged.

The unqualified success in rebuilding the red snapper fishery in the Gulf of Mexico shows the benefits that can be achieved through catch share programs. Red snapper in the Gulf of Mexico were overfished for decades. A management plan first took effect in 1991, creating a fishery that operated as a derby with an overall catch limit and a season that opened and closed when that quota was met. Under that system, each individual fisherman would race to catch as many fish as possible during the season. This was similar to the old halibut and salmon derbies in the Northwest and had a similar outcome—a short season (less than 3 months), low prices, and a market void of domestic red snapper the remainder of the year. It was an unsafe, inefficient, and uneconomic way to manage the fishery. It also did little to improve the conservation of the resource. Other attempts at using traditional methods of managing fisheries, including shortened seasons, trips limits and size limits, also failed to improve economic conditions in the industry or rebuild the stock.

A better approach was needed, so the stakeholders in the fishery began the process of developing a red snapper individual fishing quota ("IFQ")—a form of catch share or limited access privilege program. The stakeholders voted on the program by referendum, and it was implemented in January 2007.

The red snapper fishery is better now than I have seen in my lifetime. It has a longer season. It is better economically, and we are seeing a resurgence of red snappers. The difference was that by assigning an individual his own quota, the collateral damage was reduced since he could now keep fish that he used to discard while fishing for other reef fish species during other closed seasons. An IFQ program designed by the stakeholders is a very important tool in the fishery management strategy. It is the only tool that allows fishermen the individual flexibility to meet their needs. I feel that it is imperative that this tool be available for future consideration by fishermen who want to use it.

One of the criticisms of NOAA's National Catch Share Program ("NCSP") is that it is taking funds away from cooperative research and other science-based programs. Such criticisms are unfounded. NOAA has indicated that the funds it has requested be transferred out of the cooperative research line item and into the NCSP line item will continue to be used to fund cooperative research programs in catch share fisheries.[1] It is also important to note that NOAA is requesting $67.120 million for critical research programs like stock assessments in FY12, a 112 percent increase over the $31.631 million for stock assessments enacted in FY08. As stated by Eric Schwaab, head of NOAA Fisheries, funding for the NCSP "is not requested at the expense of other important fisheries research and management programs."[2]

We understand the concerns of those who find it difficult to be told when to fish, where to fish, what to keep and what to discard. In the Gulf of Mexico we have lived with overfishing, chronically low fish populations and unstable fishing communities. With scientifically based catch limits and catch shares, we have reversed that process and now have a thriving commercial fishery for red snapper. Today's constraints are the result of putting off hard choices, sometimes for decades. The new law made those choices unavoidable. We're making progress, and stopping the process now means going back to the downward spiral. We simply can't go back to the old ways of overfishing and pretending the resource doesn't have limits.

Catch share management is a way to empower fishermen to shape their own fishing future. We were very active in developing our catch share program and think others should be too. Just like other management measures, catch shares work best when they are developed with input from fishermen. The fishery management council process allows that to take place and as far as we know most catch share programs come about that way. They are important tools for effective management and we need to be able to continue to consider using them.

The $54 million in funding NOAA has requested for its NCSP in FY12 is not only crucial to programs that are already on the water, such as the red snapper IFQ, but also to the development of new programs to further improve the management of our Nation's fisheries. We urge the Subcommittee to support this level of funding, and to oppose provisions that would limit the ability of the regional fishery management councils to consider the use of catch share programs.

Thank you for considering our views.

Sincerely,

DAVID KREBS,
President,
Gulf of Mexico Reef Fish Shareholders' Alliance.

March 18, 2011

Oceans, Atmosphere, Fisheries, and Coast Guard Subcommittee

I'm writing this letter in regards to the Magnuson-Stevens Act (MSA). The MSA already has the flexibility and language needed for regional councils to properly manage the Nation's marine resources; however the MSA is supposed to ensure fair and balanced appointment. What the commercial sector has in the Gulf is clearly not fair or balanced. I'm substantially dependent on the commercial fishery and enormously concerned that if left unchecked the Gulf of Mexico Fishery Management Council (GMFMC) will continue to make bias management decisions. Decisions like re-allocating the Nation's resource to an unaccountable recreational fishery that accounts for less than 5 percent of the Nation.

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[1] *See* testimony of Eric Schwaab, Assistant Administrator for NOAA Fisheries, before the Subcommittee on Insular Affairs, Oceans and Wildlife of the Committee on Natural Resources, U.S. House of Representatives, One Hundred Eleventh Congress, Second Session, regarding oversight hearings on "Catch Shares as a Management Option: Criteria for Ensuring Success—Parts 1 and 2 (Mar. 16 and Apr. 22, 2010), at pp. 17–18, available at *http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_house_hearings&docid=f:55542.pdf*.

[2] *Id.* at p. 8.

The GMFMC is not providing fair representation to all fishery sectors. The GMFMC interpretation of MSA is arguably contradictory to the intent of what Congress intended. If the commercial fishery sector is to continue to thrive, we have to figure out a new way to fairly represent all of the fishery sectors that are governed by the GMFMC.

The GMFMC has become such a bias ruling organization that many fishermen from the commercial sector have stopped attending Advisory Panels (APs) and Ad Hoc meetings. Panels are unfairly dominated by the recreational sector. The commercial sector knows it's of no use to send in a resume for AP Panels because GMFMC will not choose a commercial person over a recreational. The GMFMC is finding it hard to recruit un-bias fishery scientist to the SSC panel at this point because of the influence of the recreational sector. Standard operating procedure approved by the GMFMC has made minor and incidental fisheries violations a justification for removal or ineligible participation in panels. These same standard operating procedures for violations don't apply to the recreational sector, they are immune. Many feel it's just another ploy by the GMFMC to displace the commercial fishing sector.

The current balance of the GMFMC is an issue that needs to be addressed immediately. The out of balance GMFMC has had a significant effect on Allocation Issues, ACLs, Economic Impacts, Advisory Panels, Ad Hoc Panels and Catch Shares that especially affect the Gulf of Mexico commercial fishermen. The commercial sector has legitimate issues about the balance of the GMFMC. Alabama has not had a GMFMC commercial representative for at least the past eleven years. There are currently three at-large appointment seats currently available, however even if they are all filled from the commercial sector, the GMFMC would still be unbalanced. The APs obviously needs to be examined closer for fairness. APs created by the GMFMC are heavy recreational sector allied also.

By reviewing the voting records of the GMFMC members Congress will clearly recognize the bias. Even all five of the State Representative's vote recreational. The uneven GMFMC either out votes or simply rejects the commercial fishery representative's motions.

Let me provide some specifics. At each of the last four GMFMC meetings members of the commercial red snapper fishery have requested they form an Ad Hoc 5 year review panel to allow the commercial fishermen a way to provide input on the red snapper IFQ system; however the GMFMC has yet to complete this request. Another example is finfish. Finfish are probably the most discussed issue at the GMFMC meetings but there has never been a commercial finfish fishermen appointed to the GMFMC.

At the last Council meeting, this February 2011, I witnessed a GMFMC discussion to re-address the recreational allocation to acquire an even larger percentage of the red snapper and grouper TAC. The recreational sector to date still has failed to implement accountability measures in compliance with MSA. Eleven years after the Council set up the split for king mackerel they came back and reallocated 5 percent to the recreational sector. They also reallocated 17 percent of commercial red grouper TAC 2 years ago by raising their aggregate bag limit of red grouper. Motion after motion is passed over to develop a real time accountability measure for recreational sector that mirrors the commercial sector.

When it comes to allocation, the GMFMC simply picks and chooses from the years that help the recreational sector the most. They choose different years for different species to obtain an unfair advantage by using two different baseline years. Roy Crabtree strongly advised the GMFMC not to use that method. I think he understood the backlash it could cause later when a case could be made against it. Below are incidents that show these types of actions of the GMFMC that need to be addressed:

- The Gulf of Mexico Fishery Management Council demonstrates unfairness to the commercial sector when it comes to ACLs or Accountability Measures. Overharvest by either sector for amberjack, triggerfish or grouper disallows that sector eligibility for a raise in their quota. It's not the same for red snapper though; the council did not apply the same measure for that species. We feel this is a double standard due to the fact that the recreational sector has overharvested their quota of red snapper 18 out of the last 21 years. In many of those years the recreational fishery went 100 percent over their quota.
- The full potential of commercial fishery economic impacts had been devalued for years because of bad fishery management regulations mandated by the GMFMC. Commercial Fishermen provide access for the Nation's consumer and using just red snapper alone that accounts for almost 3½ million meals for the

Nation's consumer. According to NMFS less than 5 percent of the U.S. population accounts for saltwater anglers.

In 2008 the commercial sector (Seafood Industry) generated $104 billion in sales impacts, and supported 1.5 million full and part-time jobs, while the recreational sector generated $58.9 billion in sales impacts and supported 385,000 full and part-time jobs, using 2008 as the baseline year. Now that is significant commercial fishery economic impact that the GMFMC pays no attention to.

In conclusion, I think the GMFMC already has the flexibility and language needed in MSA as it stands today. The IFQ red snapper commercial fishery is the most accountable, well managed and successful fishery management plan ever developed in the Gulf of Mexico. It has increased the optimal yields, reduced regulatory discards and is meeting the goals of MSA. IFQs working in conjunction with reduced size limits have allowed red snapper to be removed from overfishing status. We need more successful management plans for the other sectors. The recreational sector wants to open the MSA simply to reallocate the resource. They have had plenty of years to develop a good Marine Resource Management Plan, but have failed to do so with their "business as usual." Successful fishery management is going to require a balanced representation from both sectors to achieve management goals that will reach optimum yield. The future of sustainable fisheries requires true stewardship of the resource.

Sincerely,

DAVID WALKER,
Walker Fishing Fleet, Inc.

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