June 9, 2008

Tina Berger, Public Affairs Specialist
Atlantic States Marine Fisheries Commission
1444 Eye Street NW, 6th Floor
Washington, DC 20005

Dear Ms. Berger:

Coastal Conservation Association ("CCA") is taking this opportunity to comment on the Atlantic States Marine Fisheries Commission's Draft Strategic Plan for 2009-2013 (the "Plan"). CCA is a national organization comprised primarily of anglers, with a total membership of approximately 100,000. It is dedicated to the restoration and conservation of the nation's marine resources, for the use and enjoyment of the general public. Seventeen states host organized CCA chapters, including every member state of the ASMFC except for Rhode Island, Pennsylvania, New Jersey and Delaware. CCA's comments, set out below, address each of the eight goals included in the Plan.

GOAL 1

Rebuilding and restoring depleted Atlantic coast fisheries, and maintaining and fairly allocating restored fisheries, is arguably the core mission of ASMFC, a goal which is restated in the Commission's Vision to work toward "Healthy, sustainable populations for all Atlantic coast fish species or successful restoration well in progress by the year 2015."

ASMFC's progress toward achieving its Vision has, inevitably, varied from species to species, and CCA recognizes that limited resources, on both the state and Commission level, make it impossible to focus efforts on all species at all times. However, when reviewing the status of the multiple fish stocks that fall under ASMFC's aegis, it quickly becomes manifest that, while some are robust or well on their way toward recovery, there are others that, under current management, are neither healthy, sustainable nor the subject of a successful restoration process.

Thus, while CCA agrees with the ASMFC's strategy to "Develop and implement new fishery management plans, amendments and addenda in a timely manner, to address the conservation and management needs of the Atlantic coastal fishery populations," it believes such strategy should be further refined to concentrate its efforts and resources on those stocks and species which remain at seriously depleted levels. Thus, while striped bass management will probably always need some fine-tuning and summer flounder will remain a contentious issue until recovery is achieved, such species are not in as dire need of management attention as are others, such as river herring, American shad and the southern New England/Mid-Atlantic stock of winter flounder. The Plan, therefore, should reinforce ASMFC's Vision, and include strategies that will concentrate resources on those species and stocks which will require special attention if "restoration well in process by the year 2015" is to be achieved.

Of course, management of such badly depleted species will inevitably result in strict management measures, possibly including a complete, if temporary, closure of directed fisheries. Such measures are often unpopular, and will meet with resistance from affected fishers. Unlike the regional fishery management councils, which are bound by the provisions of the Magnuson-Stevens Fishery Conservation and Management Act, ASMFC has effectively unlimited discretion with regard to how a particular species or stock is to be managed. However, while it is not bound by law to a particular philosophy of management, it does espouse certain values, including "states' values" that "Conservation of the resource is the states' highest priority" and that of "Stewardship to maintain recovered species' status." Those states' values are supported by "commissioners' values" endorsing "Effective Stewardship of the Atlantic coast's marine resources" and the "Courage to make difficult decisions."

Such stated values would seemingly dictate a strategy that "All management decisions shall be supported by the best available science," yet no such explicit provision appears in the Plan. One strategy, "Utilize the best scientific advice," appears to come close, but remains overly vague. Replacing it with a statement that clearly demonstrates the Commission's commitment to science-based management would more completely bring the Commission's strategy in line with its stated values, and make it more likely that the Commission will honor its Vision and accomplish its Mission.

In a related vein, CCA notes that the Plan includes a strategy to "Monitor and promote cooperative planning with the Regional Fishery Management Councils, NOAA Fisheries and other entities." While CCA does not disagree with that strategy, it does not believe that the strategy goes far enough to assure effective management. Many species, including such sought-after fish as Atlantic herring, summer flounder and Spanish mackerel, are subject to joint ASMFC/Council plans. In order for such plans to be effective, both ASMFC and the relevant fishery management council must agree on a basic suite of measures that is needed to effectively conserve and, if necessary, rebuild a population. If there is material divergence between the ASMFC and Council plans, as has happened with spiny dogfish in the past and nearly occurred with summer flounder in 2007, the conservation impact of the plan is severely diminished. Thus, CCA would ask for a strategy that would "Strive for constant management measures for species jointly managed by ASMFC and the regional fishery management councils," and so better assure effective conservation of the affected stock.

While the foregoing comments regarding specific strategies are intended to assist the Commission in attaining Goal 1, they are not, even when read in conjunction with all of the other strategies set forth in the Plan, sufficient to achieve that goal unless the commissioners are, in fact, willing to demonstrate the abovementioned value, the "Courage to make difficult decisions."

That courage was evident two decades ago, when Congress granted the Commission real management authority with regard to the then-collapsed striped bass population. Armed for the first time with the ability to enforce the mandates of its management plan, the commissioners heeded the advice of the Striped Bass Technical

Committee, imposed extremely strict management measures that had, as their sole objective, the restoration of the coastal migratory population of striped bass, and proceeded in a precautionary manner, incrementally increasing harvest only after the rebuilding stock attained pre-established biological targets that measured its progress toward recovery. The result was an unprecedented management success which remains unmatched by any other species within the Commission's jurisdiction. It should be further noted that the Commission attained such success without being held to the strict rebuilding requirements of the Magnuson Act, which requirements would not even be adopted until a year after the striped bass population was declared fully recovered. The Commission accomplished its goal with nothing more than courage, good scientific advice and a desire to do that right thing.

However, such courage and desire no longer seems to dominate Commission decisions. Instead, the Commission is viewed by some as a forum which may provide fishers with a means to escape Magnuson Act mandates within state waters. Thus, in addition to the dogfish decision described above, we have seen a Commission unable or unwilling to end recreational overfishing of summer flounder, that adopted a tautog SSB target that is well below the biomass of the healthy, pre-1980 population (and concurrently adopted an F_{target} that will take decades to rebuild the stock to even that modest level) and, despite a population collapse at least as severe as the one suffered by striped bass in the 1980s, one which still refuses to take the tough action required to stop overfishing of the Southern New England/Mid-Atlantic stock of winter flounder.

History has demonstrated that the most effective fisheries management measures are swiftly imposed, decisive and extremely unpopular with at least one of the affected user groups. History has also demonstrated that half-measures intended to reduce economic impacts and minimize the impact of regulations on participants in the fishery have been singularly ineffective not only in rebuilding fish stocks, but even in halting their decline. The slow, halting ramp-up of restrictions on the tautog fishery has left fishers with a spawning stock biomass that is roughly half the size of where it was when the first, inadequate measures were put in place twenty years ago. The two-decade-long failure to stop overfishing on the SNE/MA stock of winter flounder has brought us to the point where the Commission has warned, in the November 2006 edition of Fisheries Focus, that we could possibly see the extinction of local spawning subpopulations.

Such failures stand in direct contradiction to the Mission, Vision and stated values of the Commission. CCA thus strongly urges the Commission, in carrying out the strategies related to Goal 1, to return to its former bold and decisive approach to management problems, as best exemplified by its successful recovery of the striped bass population. CCA believes that, if the Commission does so, it will demonstrate to all stakeholders that it can effectively manage the stocks under its purview. However, CCA fears that the Commission's current timid approach to recovering depleted species, its failure to end the overfishing of a number of important stocks, and its current availability, in the eyes of some parties, as a sort of oasis in which to escape the mandates of the Magnuson Act, will encourage some members of the stakeholder community to seek Congressional intervention with the intention of applying the rebuilding provisions of the

Magnuson Act to Commission plans. CCA believes that the Commission can avoid such eventuality, and become an exemplar of sound fisheries management, merely by remaining true to its Mission and its Vision, and acting aggressively to restore depleted stocks.

Assuming that they are implemented in accordance with the above recommendation, CCA generally endorses all of the other strategies set forth under Goal 1. However, it also believes that the final strategy, "Evaluate alternative allocation approaches including conservation incentives to promote fair allocation," deserves special comment. Fisheries are dynamic, and neither the fish nor the fishers display the same patterns of local abundance or, in the case of fishers, utilization or behavior, that they did a generation ago. However, it has been the unfortunate tendency of fisheries managers to try to freeze time, and model allocation based on past patterns of harvest and behavior, rather than on how a fishery would best benefit the citizens of the nation and the individual ASMFC states in the future. CCA would ask that ASMFC's strategy be amended to prioritize efforts to reshape fisheries in a manner that reflects predicted patterns of human population and resource use, as well as trends in and management goals for the population of the resource itself. CCA has attached to this letter a copy of comments that it has provided to the South Atlantic Fishery Management Council, which address the allocation issue, as an illustration of the approach it believes the Commission should take with regard to future allocation decisions (See Attachment A).

GOAL 2

Effective management depends on good science, making the goal of strengthening the data and improving the quality of the science available to ASMFC essential to the Commission's ability to accomplish its mission. Thus, CCA can only agree with the strategies cited in the Plan to further this goal. However, CCA again suggests that the strategies should be further honed to focus on particularly urgent needs.

For an example, one proposed strategy is to "Improve, expand, and focus interstate and state-federal cooperative research and statistic programs to support critical scientific and fishery management needs." However, like so many other things, what constitutes a "critical" need lies in the eye of the beholder. CCA suggests that a commissioner from a southeastern state might view Atlantic herring research as less "critical" than work involving red drum, while a New England commissioner would very possibly come to the opposite conclusion. Therefore, CCA suggests that a strategy of "Allocating significant resources to improve scientific knowledge of depleted and data-poor species" would be appropriate. Scup and spot, for example, may not be as charismatic as striped bass, but both can support significant fisheries, and are deserving of solid, science-based management.

Such a strategy is critical to achieving Goal 2, since basic biological data, and in particular fishery independent data, is often the critical missing element needed to accurately assess the condition of a stock or evaluate the efficacy of existing management measures. CCA suggests that the development of a matrix which juxtaposes data needs

against the status of each stock would be both useful in determining where assets should be expended and in illustrating to the public why particular allocations of assets were made. For example, while more data on bluefish or the mid-Atlantic stock of croaker (e.g., indices, length/weight correlations, otoliths aging, etc) would be nice to have on hand, such species are already on track for recovery by the 2015 target set in the Commission's Vision statement under current data collection protocols. However, the same biological data for American shad, tautog or the south Atlantic stock of croaker would be much more valuable, since none of those populations are likely to have their restoration "well in progress" by 2015.

GOAL 3

CCA believes that, without effective and timely compliance, management measures lose much of their effect. Thus, it endorses the strategies proposed in the Plan to achieve compliance goals. However, CCA urges an expansion of the final strategy in this section, that ASMFC "Develop and implement fishery management measures that include compliance incentives and foster stakeholder buy-in," to address two problems that are recurring problems in fishery management, that of "paper compliance" and of dilatory compliance with agreed-upon measures.

"Paper compliance," for purposes of these comments, is defined as the adoption of management measures which, using the calculations employed by the relevant Technical Committee, should theoretically constrain harvest within total allowable landings ("TAL"), but which fail to achieve such constraints in practice. Probably no better example can be found than the recreational summer flounder fishery, in which states routinely exceed their annual TALs, even though their regulations were previously vetted and found adequate by the Summer Flounder Technical Committee. While the reasons for such overfishing can be debated, the fact of serial overfishing cannot. In 2008, for the first time, the Summer Flounder Management Board superimposed a "performance factor" onto its calculations, in the hope of adjusting its theoretical calculations of TAL to correspond with real-world performance and thus ending overfishing. CCA supports such adjustments, and suggests that a strategy to "Reduce TALs where appropriate to adjust for historical patterns of overfishing" for all species would be of benefit to the management process.

Dilatory compliance, for most species, also remains an issue. Although ASMFC can enforce its management mandates through the noncompliance process, such process is time-consuming, a fact that can be taken advantage of by states that wish to maintain higher levels of harvest for as long as possible. (This was most recently seen in New Jersey which, by refusing to comply with the mandates of Amendment 4 to the Interstate Fishery Management Plan for Tautog until faced with a federal closure of its fishery, was able to maintain harvest at impermissibly high levels for the first four months of 2008, rather than implementing reductions on January 1, as called for by the management plan.) To avoid such delay in implementing plan measures, CCA suggests that a strategy of "Implementing measures that discourage states from delaying adoption of Commission-approved management measures" be adopted. As a model for the type of measures that

would be promoted by such a strategy, the Commission is referred to Addendum XVI of the Interstate Management Plan for Summer Flounder, Scup and Black Sea Bass, in which the Commission imposed disincentives upon those states which did not timely adopt required management measures. Similar provisions, if added to plans governing other species, would help to assure that all states do their best to truly cooperate with the cooperative management process, and not use delays inherent in the system to temporarily avoid the responsibilities imposed upon them.

GOAL 6

CCA cannot disagree with any of the strategies intended to further this goal. However, as was the case with strategies proposed to support Goal 1, CCA does not believe that the strategies listed for Goal 6 go far enough to assure cooperation between the Commission and regional fisheries management councils in the case of jointly managed species. In addition to a strategy that would merely have the Commission "Participate in the formulation of national strategies stemming from the reauthorization of the Magnuson-Stevens Fisheries Conservation and Management Act," CCA would like to see a strategy that would "In the case of jointly-managed species, conform interstate fishery management plans to the requirements of the Magnuson-Stevens Conservation and Management Act," in order to avoid the possibility of separate Commission and federal plans that have separate goals, adopt different strategies and thus are collectively far less effective in rebuilding and conserving marine fish populations.

GOALS 4, 5, 7 AND 8

CCA believes that goals 4, 5, 7 and 8, and the strategies for achieving them, as set out in the Plan, are both reasonable and worthwhile. As CCA has no additional comments or suggested changes with regard to such goals and strategies, it has, in the interests of brevity, addressed them here collectively and will not address them further, other than to say that they have its support.

Thank you for considering CCA's views on this matter.

Sincerely,

Sherman Baynard, Chairman
Atlantic States Fisheries Committee
Coastal Conservation Association

ATTACHMENT A: CCA's Comment on the South Atlantic Fishery Management Councils draft Allocation Amendment.

Coastal Conservation Association Comments on the South Atlantic Fishery Management Council's DRAFT Allocation Amendment

Coastal Conservation Association is a grassroots organization with more than 96,000 members in 17 state chapters along the Gulf, Atlantic and Pacific coasts dedicated to the conservation, promotion and enhancement of the present and future availability of coastal resources for the benefit and enjoyment of the general public. CCA has been active in local, state and federal fishery management issues for more than a quarter century.

CCA considers allocation in federal fisheries management one of the key issues facing anglers and managers in the coming decades, and we would like to express our appreciation for the opportunity to comment on this allocation amendment.

CCA supports a new, forward-looking approach to allocation, primarily based on requirements in the MSA, and minimizing past catch history. We believe:

1. Allocations are not required under the Act except in fisheries under rebuilding plans or where harvest levels are reduced;

2. Whenever they occur, the Act requires the Secretary and the Council to analyze the economic impact of the proposed conservation and management measures on all of the participants in each of the sectors of the fishery;

3. The obligation is ongoing---the failure to address the distribution of benefits and restrictions by both the Secretary and the Council is a fatal procedural flaw;

4. The process allows the use of historic data but the use of the economic information is required;

5. The final product of the generic allocation plan ought to include a series of considerations (economic impact, historic catch, demographic shifts, impact on coastal communities, impact on fishing communities, etc.) and a process that allows them weighed.

A new allocation paradigm is needed for the following reasons:

1. The human population along the Atlantic coast has increased significantly in the past 20 years, presumably causing an increase in the number of anglers wanting access to the marine fishery resource;

2. There are changes in habitat that may have affected fish populations;

3. The primary data used to compare the recreational harvest to the commercial harvest is the Marine Recreational Fishing Statistic Survey data, whose accuracy is unknown;

4. There have been many changes in regulations during the past 20 years, affecting either sector's ability to harvest fish within the complex, and the effect of these changes are not reflected the proposed allocations;

5. It does not take into account the economic value of either sector.

Most importantly, the use of past landings data to set future allocations is inherently a backward-looking management measure that does not account for future changes within the fishery. We would prefer to set allocations which reflect how managers and fishermen would like the fishery to look in the future.

We are asking that NMFS follow the law and prepare economic documents and use them in the deliberations. They must also review and renew allocation decisions every time they impose new harvest restriction or derive benefits from a rebuilding plan. Any time the harvest levels go down in any fishery, NMFS must get the councils to review the impacts on the sectors and reallocate the resource to meet the goals of the plan and the best economic outcome from the use of the resource.

RATIONALES TO CONSIDER FOR A NEW ALLOCATION PARADIGM

POPULATION GROWTH

Overall population growth and a continuing shift to coastal communities will exacerbate inequities between commercial and recreational anglers in the decades to come.

According to a NOAA publication on population growth: "Total coastal population between the years 1980 and 2003 increased by 33 million people or 28 percent, roughly consistent with the nation's rate of increase. Coastal population within the Pacific region showed the largest gain during this time with almost 12 million people, followed by the Northeast with 8 million people. The Southeast region, however, exhibited the largest rate of change with a 58 percent increase, followed by the Pacific at 46 percent, and the Gulf of Mexico at 45 percent. The rate of growth in the Northeast and Great Lakes regions was considerably smaller with 18 percent and 6 percent increases, respectively.

The Southeast has increasingly become a leading destination for retirees and job-seekers. Between the years 1995 and 2000, the Census Bureau reported that the highest levels of migration were to states that fall within the Southeast region and the Gulf of Mexico region, particularly to Florida, Georgia, and North Carolina.

More significantly, "Coastal counties constitute only 17 percent of the total land area of the United States (not including Alaska), but account for 53 percent of the total population."

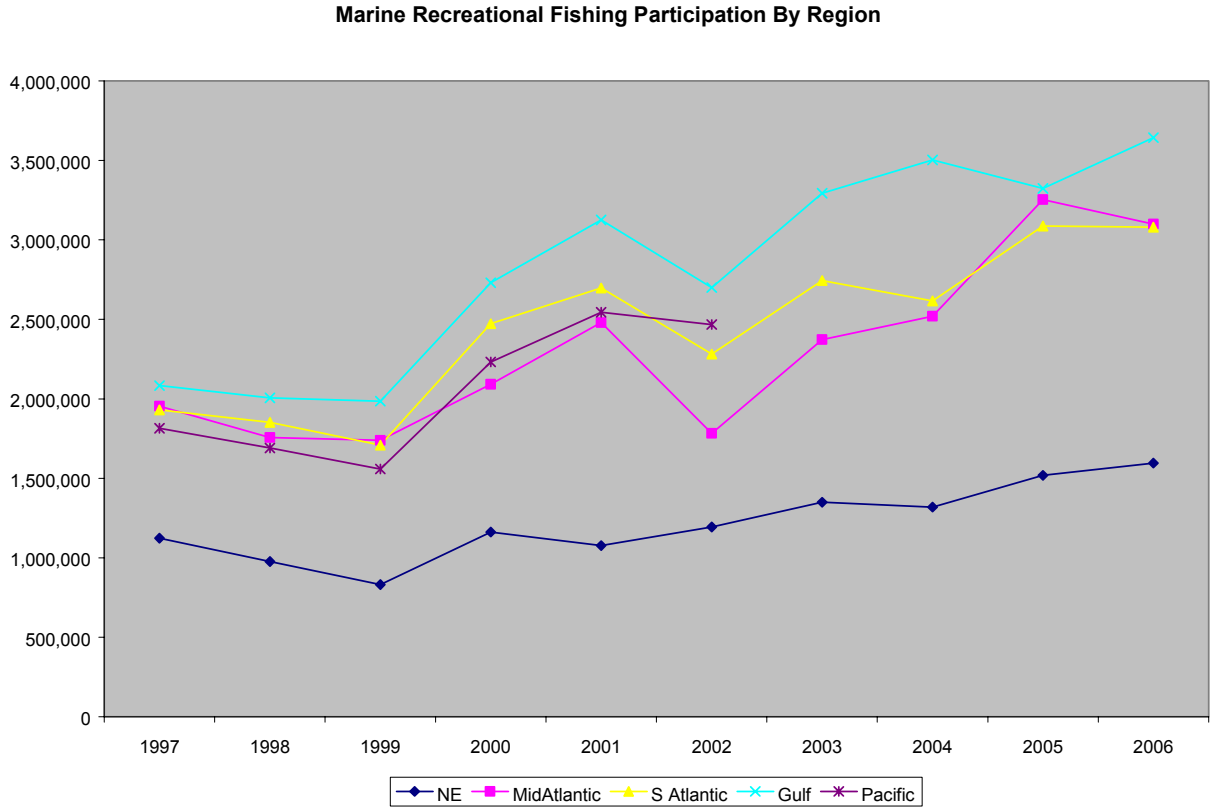
PARTICIPATION IN MARINE RECREATIONAL FISHING

It is clear that more and more people will be moving to the coasts and that trend is unlikely to abate in the foreseeable future. Recreational fishing is a popular sport, and is frequently cited as an important reason many choose to relocate to coastal areas. We can expect participation and demand for access to recreational fishing activities to continue to rise:

"The total number of resident participants in marine recreational fishing in the Southeast region has averaged approximately 4 million residents during the 1990s. Florida has had the largest number of resident participants followed by North Carolina and Louisiana. Based on the survey results and Census Bureau population projections, it is expected that the number of participants in the region will increase at an average annual rate of 1.34 percent through 2025.

The total number of participants in the region would increase to approximately 5.5 million in 2025 with Florida, North Carolina and Louisiana continuing to have the largest number of resident participants. This increase in the number of participants is due to a general increase in the population throughout the Southeast. Despite this overall increase, the participation rate for marine recreational fishing is expected to decline as individuals in the prime participation cohort groups (white males ages 26 to 55) become a smaller proportion of the total population in each coastal state in the region." (**Current and Future Participation in the Marine Recreational Fishing in the Southeast U.S. Region** J. Walter Milon, NOAA Technical Memorandum, NMFS-F/SPO-44 September 2000)

Additionally, data from the Marine Recreational Fishing Statistics Survey reveal increasing participation in marine recreational fishing:



Finally, the recently released U.S. Fish and Wildlife Service Survey (conducted every five years) showed a slight decline in the number of saltwater anglers in recent years, but a large increase in the effort (fishing trips) and expenditures generated by the reduced number of anglers. In the future, we can expect more people to participate in recreational fishing and expect some portion of the total allowable catch.

LEGAL UNDERPINNINGS TO ALLOCATION

Allocation is inevitable in most fisheries in the United States. Marine biologists, resource economists and sociologists have all written volumes on the factors and the philosophy underlying the decision to allocate. Many would argue that allocations should involve consideration of past, present and future uses. Some would argue that allocation criteria include consideration of interests beyond the fishing industry, like consumers of fish and the interests of the public in knowing healthy resources are available to them even though they have no intention of using them.

CCA's view is more limited. It focuses on the specific criteria outlined in the Magnuson-Stevens Act and in the existing guidelines published by NMFS.

The issue of allocation is a complicated and, if done properly, a multi-faceted consideration. Generally it involves the distribution of fishing benefits among users with disparate degrees of dependence on the resource itself. In some cases, fishery management plans and managers come to the fishery with the allocation already in place as a result of geography, historic use or economics.

Most of the initial allocations under the Magnuson Act were made to preserve the status quo among the existing users. Some of these allocations were among commercial gear types (longlines vs. hook and line vs. purse seine in the bluefin tuna fishery). Some fisheries have been allocated through the use of sector quotas without any recognition that there has been an allocation (gag grouper and most of the North Pacific stocks).

Lastly, in many cases fisheries have been conducted without any regard to allocating fishing privileges among user groups (inshore and offshore shrimp fisheries). The spectrum of allocation ranges from

fisheries where no allocations exists (shrimp) to ones where virtually every gear type and sector has its own quota (bluefin tuna).

There are three instances when allocation is necessary:

1. When it is specifically called for by the statute (16USC 1883(D)). The red snapper fishery is such an example, although this has never happened.

2. When a fishery needs to be rebuilt and either the benefits of the rebuilding or the restriction need to be redistributed to ensure that the various sectors are being treated fairly and equitably.

3. Where the implementation of the new provisions of the Act addressing accountability necessitates separation of sectors in a single fishery. This is in no way mandatory but may be necessary to treat different sectors fairly.

The principles and obligations for making allocations are spelled out in the Act, which requires the following:

1. National Standard number four requires all conservation and management measures to not discriminate between residents of different States;

2. Allocations shall be fair and equitable for all fishermen; reasonably calculated to promote conservation; carried out in such manner that no individual, corporation, or other entity acquires and excessive share of such privileges. (16 USC 1851(a)(4)) This is one of the original provisions of the Act and has been expanded on in the national standard guidelines (50 CFR 600.325) and by a number of law suits. Two parts of this provision are notable:

- The first sentence applies to all residents and repeats a long standing constitutional requirement that the regulations can not discriminate between residents of different states. A provision that restricted the sale of fish to the residents of New Jersey might not be approvable if the same resource could be sold anywhere.

- The second provision deals directly with allocations. If it becomes necessary to allocate fishing privileges, the allocations must be fair and equitable to all fishermen---not the public at large or the national interest. Fairness and equity is determined by the record upon which the allocation is made. The record must support the logic of the decision being made and must have reflected a breadth of considerations when being made. An allocation to one sector without consideration of the historic catch pattern, social implications, impact on coastal communities, or the economics of other sectors is unlikely to be found as fair whereas an allocation that resulted after a reflection of all of this might be.

In 1996, the Act was amended to require the Secretary (in fisheries that are overfished) to adopt regulations that allocate both overfishing restrictions and recovery benefits fairly and equitably among the sectors of the fishery (16 USC 1854 (e)(4)(B). This requirement only applies to fisheries with rebuilding plans, but generally reflects the same kind of analysis in National Standard 4. NMFS clearly views this as an affirmative obligation and included such a measure in the recently approved red snapper regulations.

We should stress that this is an affirmative obligation and that, in addition, it is an ongoing requirement. Every time the benefits and restrictions change there ought to be a reconsideration of whether they are fair or not. The simple “one time decision” in a plan like red snapper without any consideration of

the improvement of the stock is not approvable. The distribution of the benefits among the directed and bycatch fisheries is the ongoing responsibility of the Council throughout the rebuilding plan.

How the decision of fairness will be made was addressed in the 2006 amendments to the Magnuson Act. Fishery Management plans must include a description of the commercial, recreational and charter fishing sectors, including its economic impact and, where possible, quantify trends in landings (16USC1853 (a)(13). [The purpose of this language was to give the Council economic information on the impacts of management measures when it developed them.]

A similar analysis is required of the Secretary when he approves a plan or amendment but it is not factored into the Council's early decision process. In addition to this requirement, Congress added a specific requirement for plans that allocate amongst sectors:

> "To the extent that rebuilding plans or other conservation and management measures which reduce the overall harvest in a fishery are necessary, allocate, taking into consideration the economic impact of the harvest restrictions or recovery benefits on the fishery participants in each sector, any harvest restrictions or recovery benefits fairly and equitably amongst the commercial, recreational and charter fishing sectors in the fishery" (16USC 1853 (a)(14).

The provision is quoted accurately, leading one to ask, "what does this section mean?" The last clause seems to put the same obligation on the Council as is presently on the Secretary, namely the fair distribution of restrictions and benefits. The first part can be read to say that whenever harvest levels are decreased the Council must allocate taking into consideration the participants in each sector.

The two-plan requirements and the obligation of the Secretary requiring redistribution of benefits and restrictions ought to be read together. Taken that way, then the obligation to allocate is mandatory in rebuilding fisheries and possibly in any fishery where harvest levels are reduced for any reason. If this interpretation is correct then any time a Council or the Secretary puts in new catch limits in a rebuilding fishery, they have to look at the economics of the fishery to determine if the distribution of the recovery benefits or restriction is fair. Then they can also look at other factors, like historic catch levels, although they are not required to.

There are no requirements in the Act to use historic catches, vessel size, race, color or creed in allocation criteria. Most of the elements used in plans so far have been established by the managers to make sure the allocation met the fair and equitable requirement of National Standard four:

> 1. Allocations are not required under the Act except in fisheries under rebuilding plans or where harvest levels are reduced;
>
> 2. Whenever they occur, the Act requires the Secretary and the Council to do an analysis of the economic impact of the proposed conservation and management measures on all of the participants in each of the sectors of the fishery;
>
> 3. The obligation is ongoing---the failure to address the distribution of benefits and restrictions by both the Secretary and the Council is a fatal procedural flaw;
>
> 4, The process allows the use of historic data but the use of the economic information is required;
>
> 5. The final product of the generic allocation plan ought to include a series of considerations (economic impact, historic catch, demographic shifts, impact on coastal communities, impact on fishing communities, etc.) and a process that allows them to be weighed.

ECONOMICS IN ALLOCATION

Broadly defined, economists use two different metrics to examine the implications of policy decisions on society; **economic value** and **economic impacts**. The first, economic value, also known as economic

benefit or welfare, monetizes the value society places on resources or activities. Economic value should be the metric used to decide between one course of action and another (Freeman 1993, Edwards 1990, and others).

Comparing value estimates between two proposed allocation schemes answers the question, is society better or worse off as a result of a particular allocation?

The second metric, economic impacts, examines the flow of expenditures on fishery resource activities and products as that spending moves through a community. While economic impact measures should not be used to choose a course of action, they can be used to examine what particular sectors in the economy are hurt or helped by a particular policy and by how much.

Economic impact analysis examines the distribution of value changes identified when comparing benefits, making both types of analysis complementary, and, as will be shown below, quite necessary when data on value cannot be obtained.

For both the recreational and commercial sectors, **total value** is the sum of **consumer surplus** and **producer surplus**. Producer surplus is measured by examining the supply curves for commercial producers of seafood, including harvesters, processors, wholesalers, and distributors, as well as the supply curves for recreational service providers such as charter and head boat operators. Essentially, producer surplus is the difference between the cost of producing the good and the dollar value generated by the sale of the good.

Consumer surplus is measured by examining the demand for goods at the consumer level, including the demand for fish at markets and restaurants and the demand for recreational fishing trips. Consumer surplus is the difference between the amount society would be willing to pay for the good in question, and what consumers actually paid for the good in the marketplace.

Value is not static across all allocations and, as any consumer obtains more of a good, the marginal value of obtaining the next unit of that good falls. That is, there are diminishing returns to additional consumption of any good and this is a fundamental tenet of consumer demand, which has important implications for allocation decisions.

A similar tenet exists for producers, but does not always hold true depending on the character of the industry. **Table 1** includes a brief example for a hypothetical fishery. For example, the current allocation between commercial and recreational users is 50/50. An economist measures the commercial sector value to be $50 million, the recreational value to be $75 million, and total value of fishery to be $125 million (sum of commercial and recreational value). This does not mean that the recreational sector should get 100 percent of the allocation. Because of the economic property of diminishing marginal returns described above, the total value of a 100 percent recreational allocation in this example is $110 million, or less than the 50/50 allocation.

While this example above suggests that allocation should be changed in favor of the recreational sector, how much should it be increased? Economists say that society's benefit will be greatest when the allocation is set such that the marginal value, or the value of the next fish in the allocation, is equal across the two sectors. In the example shown in Table 1, total value is maximized when the allocation is set at 25 percent commercial and 75 percent recreational, or where the two marginal values are both $4/fish caught.

Table 1. Value Table for a Hypothetical Fishery.

Allocation		**Commercial Sector**		**Recreational Sector**		**Total National Value (Millions $)**
Commercial	Recreational	Marginal Value	Total Value (Millions $)	Marginal Value	Total Value (Millions $)	
0%	100%	$6	$0	$3	$110	$110
25%	**75%**	**$4**	**$30**	**$4**	**$105**	**$135**
50%	50%	$3	$50	$5	$75	$125
75%	25%	$2	$60	$6	$50	$110
100%	0%	$1	$80	$8	$0	$80

For the recreational sector, total value or net benefits, is the sum of the consumer surplus from recreational fishing participants and producer surplus from charter and head boat operators. For the commercial sector, total value is the sum of consumer surplus from the purchase of seafood products in markets and restaurants and the producer surplus from harvesters, processors, wholesalers, and distributors of those fishery products.

Estimating consumer surplus entails estimating demand curves for both the angling experience and for consumer purchases of seafood. On the recreational side of the equation, estimating consumer surplus involves specialized surveys of anglers. Work is needed to increase the number of fisheries covered by these types of surveys. On the seafood consumer side, data on the prices and quantities of seafood purchased in markets and restaurants is needed.

Unfortunately this type of data does not currently exist.

Estimating producer surplus requires data on the costs and earnings of all the various businesses involved in the production and sale of seafood or recreational services. Very little of this type of information exists, making the calculation of producer surplus difficult at best and impossible at worst. This is where economic impact models can provide some needed information, albeit imperfect.

Economic impact models use business transaction data collected annually by several agencies within the U.S. government to create a map of economic activity occurring in the economy between consumers and suppliers. These models produce three measures of economic performance: output, value added, and employment. In the absence of value, value added or contribution to gross domestic product (GDP) is an acceptable stand-in, but one that typically overstates true value across recreational and commercial sectors (Kirkley et al 2000).

Unfortunately, commercial fishing and charter and head boat businesses are typically poorly represented in the national data.

Very few studies of this type have been conducted for saltwater recreational fishing. One particularly good study was conducted by Kirkley, et al. (2000) regarding striped bass allocation in Virginia. The study used a specialized survey of recreational anglers and a cost and earnings survey of commercial fishermen. Using the commercial cost and earnings data and the recreational survey data, the study concludes that a 100 percent allocation to the recreational sector maximized net benefits to Virginia at a value of $27.6 million. However, changing the split to 50/50 only reduced total value to $24.6 million. The authors felt a sensitivity analysis was necessary to explore this result further.

One method to examine this sensitivity is to highly inflate the commercial value and ratchet down the recreational value, a type of least/most analysis. As a result, the team chose to use the value added of all sectors on the commercial side (most estimate) while using just the angler demand model and ignoring the for-hire sector on the recreational side (least estimate). Under this scenario, benefits to society would be maximized with a 75 percent allocation to the commercial sector. However, to support this level of benefit on the commercial side, the retail price of striped bass would have to exceed $32/pound. After this and other types of sensitivity analysis the team concludes that the 100 percent allocation result is sound.

In 2000, NMFS estimated the value added of all recreational expenditures to be $12 billion. NMFS is currently updating these estimates for 2006 and they look to be much larger. Annually, NMFS publishes the value added of all economic activity related to the seafood industry in Fisheries of the United States. For 2000, the seafood industry in the U.S. generated $27.9 billion in value added (FUS 2000). That estimate includes the processing, wholesaling, distributing and retailing of imports and also includes industrial species and other species with no recreational component. Currently it is possible to calculate value added for any commercial or recreational fishery.

Recent calculations of value added in the **summer flounder fishery** indicate that the current allocation is not efficient or in the best interest of society at large. In 2006, the value added generated by anglers targeting or catching summer flounder was $669.3 million using MRFSS directed effort and expenditure and impact estimates from NMFS (Gentner et al. 2001, Steinback et al. 2001, Steinback et al. 2004). Taking the commercial summer flounder landings from FUS and using the NMFS value added model, the value added of all commercial activity from harvester to consumer was $79.7 million or more than eight times less than the recreational contribution to this country (FUS 2006).

Kirkley et al. also notes that it is important to examine social consequences. Large changes in allocations can lead to community impacts, labor displacement and loss of infrastructure that should be incorporated into an analysis. Additionally, their report did not examine substitutes in any meaningful way. That is, consumers might not change their fish protein purchase decisions, but instead switch to another species of fish. This would have the effect of lowering the value of the commercial side.

In summary, in order to complete the most rudimentary allocation analysis using commercial and recreational value added, recreational and commercial fisheries economic impact models are needed. On the recreational side, estimates of angler expenditures and impacts are available from either the USFWS estimates or NMFS estimates with both agencies having 2006 estimates available. On the commercial side, NMFS currently has the value added model used for FUS. NMFS is also in development of a national-level

commercial model that includes everything through the retail sector thereby updating the FUS model created in the early 1980s. It is widely acknowledged, however that this type of technique overstates actual value in each sector. Additionally, it is a static methodology that does not capture angler or harvester behavior.

Ideally, then, specialized surveys of recreational anglers would be necessary in each fishery to develop marginal values. The surveys exist for red snapper, grouper, summer flounder, and salmon, rockfish, and halibut in Oregon, Washington, and Alaska. Additionally, cost and earning data would need to be collected for the commercial fisheries involved. Currently, few fisheries are covered by cost and earnings surveys.

Detailed consumer seafood purchase data would also be needed. Unfortunately, it is unlikely that species-specific information of this type will ever be collected forward of the harvester. Instead, economic impact models will be necessary to calculate the value added from the processing sector through to the consumer as a proxy for value. When specialized data on either side does not exist, it may be possible to use the least/most type of sensitivity analysis to examine allocations, but caution must be exercised when applying mixed methodologies.

As coastal populations increase, recreational angler values should increase as well. Recreational mortality will surely rise with rising participation, increasing the necessity to address allocation for the health of the stocks. Additionally, reliance on domestically caught fish for protein will continue its downward slide, reducing the importance of the commercial industry in supplying U.S. protein needs. Other resources uses have gone the same direction, as can be demonstrated by current freshwater fishing, hunting, and public forest usage.

MANAGEMENT FOR THE CITIZENS OF THE UNITED STATES

The U.S. is a steward of all of its natural resources---sunfish, ducks, deer, and striped bass--all of them. The concept that a private commercial enterprise is necessary to provide the public with the enjoyment of those resources by selling them to consumers so they can eat them was rejected by the federal government and state wildlife managers before 1900. There is no basis in any federal common law, any wildlife law or the constitution for such a proposition.