

Draft SAFMC comments on the NMFS Stock Assessment Improvement Plan

The South Atlantic Fishery Management Council (Council) appreciates this opportunity to provide comments on the updated Stock Assessment Improvement Plan (SAIP). Stock assessments are critical to providing the stock status and benchmark information required for management under Magnuson-Stevens Act (MSA), and the ongoing lack of timely, reliable, and robust assessments greatly hinders the Council's abilities to properly manage the resources under its care. While the efforts of the previous SAIP of 2001 have led to increases in assessment quality and output, the goals expressed in the 2001 SAIP have yet to be realized in the South Atlantic, and further improvements are necessary to allow the Council to meet the mandates of the MSA.

Increased assessment productivity remains a top priority.

The single biggest challenge facing the Council is a lack of assessment productivity. The Council manages 61 finfish stocks, yet only 18 of these have been successfully assessed. The median age of these 18 assessments, based on their terminal year of data, is 6 years. Over the last 10 years the Council has received an average of 2.4 assessments per year from the Southeast Fisheries Science Center (SEFSC). Several important stocks managed by the Council have had their first ever assessments repeatedly delayed over the last decade due to the lack of assessment resources. Therefore, the Council finds it surprising that increasing stock assessment productivity is not listed in Section 1.4, "why should stock assessments be improved." While we agree that it is important to prioritize, and the prioritization discussion hints at the underlying productivity issue, prioritization strikes us as more of a "how" to improve rather than a "why" to improve. Other cited reasons to improve, such as expanding the scope of existing assessments and implementing advanced technologies, may marginally reduce uncertainty for stock that have been assessed many times in the past. These improvements offer little benefit to us, considering that the major uncertainties we face are due excessive intervals between assessments and a lack of any assessment information for two-thirds of our managed stocks. The Council requests that the SAIP acknowledge that increasing assessment productivity and ensuring all managed stocks achieve a minimal level of assessment remain critical priorities.

Incomplete evaluation of progress made under the 2001 SAIP.

The original 2001 SAIP included goals to increase assessment capabilities and staff, and elevate the information available for stocks. These were supported by evaluations of the resource needs in each region. Chapter 2 of the updated plan proposes to recap accomplishments, but provides little in the way of quantitative information to indicate the extent to which the original goals and objectives have been addressed. Some of our questions and concerns include:

- To what extent are the staffing increases proposed in Tables 3 and 8 of the 2001 SAIP now achieved?
- What progress has been made in reducing the number of unassessed stocks or to "mine" existing databases for information on such stocks, or to "conduct adequate baseline monitoring for all federally-managed stocks?"

- Does the leveling out of the number of assessments completed at 50-60 since 2006, despite continued increases in funding, indicate there are other issues blocking further productivity increases?

Because the Council agrees with the summary conclusion starting on Line 744 that the 2001 SAIP has furthered stock assessment programs that provide world-class advice, and our biggest concern is increasing the number of managed stocks for which such world class advice is available, we are concerned that this new SAIP proposes taking things in a new direction. It seems prudent to determine how well those original goals, focused on providing improved assessment information for all managed stocks, have been addressed before proposing additional complexity for existing models. We believe a thorough evaluation of the 2001 SAIP “tiers,” and its goal of moving stocks up the tiers, should be conducted before moving into a new direction as proposed in the current SAIP as alluded to on Line 468.

Support of the underlying issues, concern with the lack of solutions.

The Council agrees with the challenges and issues facing the assessment enterprise listed in Chapter 3 (Lines 837-866). We particularly appreciate the acknowledgement in the final bullet that the historical investment has been lowest in regions such as ours, and add that the assessment programs in such regions also suffer from the lack of historical investment. Our experiences strongly support the statement that assessments in such regions require greater time and resources. While both data and assessments have improved since the original SAIP in 2001, we agree with Bullets 1, 2, 5, and 7 that indicate the need for continued progress in both areas. Hence our overarching concern that the primary improvements suggested later in this document are for increased assessment complexity and decreased assessment documentation and independent peer review, rather than improved data management and assessment productivity.

Uncertain purpose of Chapters 4-6

A large portion of the SAIP is devoted to data (Chapter 4), assessment methods (Chapter 5) and peer reviews (Chapter 6). For the most part, these chapters are filled with generalized statements but few facts and figures. While these topics are fundamentally important and intertwined with assessments, the level of coverage seems to detract from, rather than add to, the description of challenges and solutions for the stock assessment program. This is in marked contrast to the 2001 SAIP, with its strong focus on assessment programs and products and numerous figures and tables. Where the 2001 SAIP seemed written with a clear goal to document the current state of assessment capabilities and justify additional assessment resources, this latest version seems to suffer from a lack of focus and purpose. The document could be improved by reducing Chapters 4-6 and providing a thorough description of current assessment capabilities.

Chapter 4 – data summary inaccuracies and concerns

The data summary table (Table 4.1, Line 939) appears to contain some inaccuracies with regard to South Atlantic Council stock assessment data collection.

- South Atlantic fisheries lack effective commercial observer coverage. The only ongoing commercial observer data collection for South Atlantic Council managed stocks is for

the shrimp fishery. There is observer coverage of the shark bottom longline and the Southeast gill net fishery, but these fisheries are managed by Highly Migratory Species Division (HMS) of the National Marine Fisheries Service (NMFS), and not the South Atlantic Council. Similarly, the later comment on Line 1159 that some observer coverage is 2% in the Southeast masks the fact that in the vast majority of fisheries in the South Atlantic the observer coverage is 0 and that 2% coverage would actually be an improvement.

- Vessel Monitoring System (VMS) data are not available for the vast majority of Council fisheries; VMS is only required in the rock shrimp fishery.
- Under the “non-commercial” category, the table indicates age, reproductive, and genetics information is available from intercepts. To our knowledge, such information is only available for the Southeast Region Headboat Survey, which is just one portion of the recreational fishery in the region. This information is not available from the Marine Recreational Information Program (MRIP), which monitors the private and charter sectors that represent the bulk of the recreational fishery.
- No entry is made for fishery-independent trawl. The Southeast Monitoring and Assessment Program provides fishery independent trawl surveys used in assessments of King and Spanish Mackerel.
- The fishery-dependent data in Table 4.1 should be classified as “Commercial” and “Recreational.” Many constituents in the recreational sector express concerns that NMFS does not place the same value on recreational fisheries as it does on commercial fisheries. Therefore, we suggest taking care to avoid statements that downplay recreational fishing and play into such concerns. Another example occurs in the paragraph starting on Line 785, where acknowledgement is given to lucrative and economically valuable commercial fisheries, with no mention of the incredibly valuable recreational fisheries assessed through the Southeast Fisheries Science Center (SEFSC).

Improvements in socioeconomic data and analyses

The diversity of both species and fishing methods in our fisheries creates many socioeconomic challenges, and the Council strongly supports developing ways to incorporate socioeconomic data in the assessment process as indicated in the heading for Section 4.14. Unfortunately, the text that follows only details how ecosystem data can be used in stock assessments. Socioeconomic data are extremely scarce; lumping them with ecosystem concerns as done here, and throughout this document, is not likely to help the situation. We strongly agree with the recommendation for collecting more socioeconomic data found at the end of this chapter (Line 1291) and reiterated in Chapter 9, and we support not only additional socioeconomic data collection in the South Atlantic, but also development of innovative methods to incorporate this important information into the assessment process. We are concerned, however, that Chapter 9 offers no clear strategies or objectives for increasing socioeconomic data collection in the future.

Support for increased automation

The Council recognizes that bottlenecks occur when data must be processed or combined from many sources, and we support automation efforts that will make data more accessible for

evaluating management effects and alternatives as well as stock assessment. However, the statement on Line 1438, implying that management changes and fishing behavior are the impediments to automation verges on blaming the customers, managers and constituents, for the ongoing struggles to provide efficient data access. Management changes and the resultant fishery behavior changes would seem to be the norm given that the MSA requires annual catch limits. Developing robust automated systems that accommodate change should be a priority to avoid falling further behind.

Inaccurate SEDAR description

The following bullets detail several inaccuracies in the description of the Southeast Data, Assessment and Review (SEDAR) process that begins on line 2165.

- SEDAR was initiated in 2002 by the SEFSC, Southeast Regional Office (SERO), and South Atlantic Council.
- SEDAR expanded in 2003 to the entire Southeast by bringing in the Gulf of Mexico Council, Caribbean Council, Atlantic States Marine Fisheries Commission (ASMFC), and Gulf States Marine Fisheries Commission (GSMFC), and again in 2008 to include HMS.
- We are the South Atlantic Fishery Management Council, not the “Southeast Atlantic”.
- The SEDAR Steering Committee includes representatives from the three Councils and the two Commissions, plus SERO and HMS.
- Assessment priorities and type are established by each of the agencies involved in the process and represented on the Steering Committee; the Steering Committee works to provide a fair and prioritized assessment schedule.
- SEDAR recognizes a) benchmark assessments, b) update assessments that only advance the terminal year, and c) standard assessments, which allow some changes in the benchmark data and configuration. Only the SEDAR benchmark process is organized around the 3 workshops; the other types of assessments are developed through shorter, streamlined procedures.
- Data processors and assessment analysts have requested additional preparation time, thus benchmarks take 12-18 months, updates take 6 months, and standard assessments take 9 months.
- SEDAR review panels always include SSC and Center of Independent Experts (CIE) representatives, are chaired by an SSC member, and they do not recommended management quantities.
- Few SAFMC stocks are assessed on a 3-5 year cycle, none are assessed more frequently.
- The Council recommends removing the references to SEDAR productivity since the values stated are not accurate and no similar information is provided for any other programs. Staffing levels cannot support 5 to 7 benchmarks annually for Council-managed stocks. Total output for all 3 Councils involved in SEDAR, including benchmarks, standards, and updates, averages about 7 stocks annually.
- Given current data delivery limitations, increasing the proportion of update assessments will not enable increased output.

There is no justification to call the SEDAR review process “elaborate” (Line 2121). No supporting details are provided in the description to indicate that the SEDAR review process differs appreciably from other regions, with the possible exception of the North Pacific and its plan team approach that apparently deviates from all the others. Nor is any information given to support the contention that the peer review process is a bottleneck in the SEDAR process. In fact, the SEDAR review process is virtually identical to the NEFSC SAW (described beginning on line 2197) process on which it was based. One major difference when compared to the SAW is that SEDAR reviews typically only consider a single stock. If the agency considers this elaborate, the Council will gladly accept reviews that consider multiple stocks. Based on our direct experience from over 15 years attempting to balance Council assessment needs with limited production capabilities, the primary bottlenecks appear to be data delivery and age structure evaluations.

In fact, the peer review component is the one part of the SEDAR process that has not been subject to major timeline extensions as the program has evolved. Initial SEDAR projects completed full benchmark assessments for several stocks in 6 months, with 2 projects completed in a year. Due to expanded time demanded for compiling and processing data, and developing the actual assessment models, it now takes over 18 months to do the same work. We agree that this is elaborate and very time consuming. However, none of the Councils involved in SEDAR asked to extend the timelines – the analysts and data providers who develop assessment inputs and models did. They did this in response to the challenges posed by inadequate and complex data that are documented repeatedly throughout this SAIP.

We find the comparison between SEDAR and the NPFMC process that begins on Line 2385 to be misleading for several reasons. First, it the impact of the admitted head start the agency has in assessing stocks in some regions (see line 861 where this document notes that historical investment has lagged in regions with high diversity like the Southeast). That past investment enables greater use of updates with their less rigorous review requirements than first time benchmark assessments. Assessments and monitoring programs in those areas have matured when compared to the Southeast, reducing demand for revised benchmarks resulting from efforts to standardize model packages or incorporate new data series. Second, the process followed by SEDAR was developed in direct coordination with NMFS to address the considerable challenges imposed by the complex data situation of the Southeast, where 8 states, 2 territorial governments, and multiple federal programs collect data. SEDAR was created in direct response to a peer reviewed agency assessment, used to impose a moratorium, which was later shown to be based on incorrect catch data. Third, the comparison is between a single council and a process which meets the needs of 3 Councils, 2 Interstate Commissions and a NOAA Fisheries Division. Finally, the paragraph beginning on Line 799 specifically acknowledges monitoring and data challenges faced by the Southeast Region. Given these many acknowledged challenges and regional differences, it is completely inappropriate to state that the lack of productivity in our region is due to the SEDAR process and its peer review approach, and imply that if we just adopted the NPFMC review approach all our problems would be solved. On the contrary, SEDAR was developed to address the unique complexities of the Southeast

Region, many of which evolved in response to the lack of historic investment by NMFS in fisheries and population monitoring and are exacerbated by the diversity of species and habitats. We are concerned that the several disparaging, yet unsupported and clearly inaccurate, statements made regarding the SEDAR process and its peer review approach reveal an underlying bias that is contradictory to the general tone of the report, and urge that care be taken to remain unbiased and objective toward the entire national stock assessment enterprise.

Support for Peer Review

The Council strongly supports the National Standard requirements for independent peer reviews, and opposes any efforts to downplay the importance of peer review. Independent peer reviews are particularly important for benchmark assessments, emerging methods, and controversial topics. Therefore, we are concerned with statements, such as line 2379, that variously term peer reviews as elaborate, impediments, and bottlenecks. No specific information or examples are provided to support such claims. In fact, numerous other statements extoll the virtues of the existing system for providing adequate flexibility (Line 2119), ensuring appropriate levels of review (Line 2143), building confidence and trust (Line 2364), and addressing MSA mandates (Line 2481). In our opinion, the preponderance of the evidence indicates regional peer review approaches are working as intended and are not in need of fixing.

The Future of Assessments (Chapter 7)

Given the attention devoted to describing productivity bottlenecks resulting from data challenges and complex analyses throughout this document, we find it surprising that the first objective for improving stock assessments is to expand their scope and address complex issues such as ecosystem linkages (Line 2501). This seems at odds with many of the problems and challenges listed in the prior 85 pages. Adding such complexity and expanded scope seems likely to exacerbate the peer review challenges, as pursuing this path will certainly require independent reviews and specialized experts. Stating a first goal of increased complexity, rather than increased assessment throughput, suggests either a lack of focus on the real problems facing the stock assessment enterprise or a lack of consensus between those describing the issues and challenges elsewhere in this document and those envisioning the future here. The Council recommends establishing “increased productivity” as the first goal for the next generation.

The Council agrees that data management and access is a major impediment to throughput (Lines 2517-2523). South Atlantic Council assessments are routinely delayed due to data delivery issues within the agency. As an example, the Council was recently forced to accept a delay in a much-awaited standard assessment of black sea bass because data were not provided within the specified deadline. The limiting factor for the number of assessments the Council can receive annually has shifted from assessment analysts to data delivery and age structure evaluations. We are skeptical that the proposed Next Generation Assessment Enterprise can be realized in our region without major improvements in data systems and increases in funding for the basics – catch monitoring, biological sample collection and analysis, independent surveys, and observers.

Identifying and considering all available data sources when conducting an assessments is time consuming, but we feel that such efforts are important and necessary despite the reduced efficiency during assessment development (line 2529). This is based on past experiences where actions on assessment recommendations were held up when constituents, the SSC, or Council members raised concerns about data or research findings that were not acknowledged in the assessment. It is our opinion that the extra discovery work at the front end of an assessment directly results in reduced controversy and delay on the back end of the process where management decisions are made. Therefore, when the assessment process is viewed as one part of an overall process of identifying a population issue and implementing a management solution, ensuring all data are included at the assessment stage is actually more efficient. Efforts to obtain all relevant data promote, rather than obscure, transparency. Transparency in the assessment process is critical, and this plan needs to address assessment needs within the boundaries of a transparent and open process to ensure the support and confidence of assessment customers.

Holistic and ecosystem linked assessments (Chapter 8)

Many stocks managed by the Council remained unassessed, including major fishery components such as Dolphin and shrimp. Nine of the 19 South Atlantic stocks included in the FSSI are unassessed. Uncertainty in available assessments is often excessive due to inaccurate catch estimates, inadequate biological sampling, and a total absence of fishery-independent survey information. Given these overwhelming deficiencies in the basic needs for fishery management based on MSY principles, we simply cannot support a next generation that focuses on ecosystem and holistic assessments.

Efficient and Effective Stock Assessment Enterprise – Chapter 10

Clearly assessment demand far exceeds capabilities. In our region, this is in no way due to demands for annual assessments as suggested on Line 3639. By focusing on annual assessments, this section misses an opportunity to address the need for increased productivity. This need is particularly acute in the admittedly historically neglected sub-tropical regions.

Assessment Categories

The Council supports the concept underlying the research and operational assessment categories, and supports the agency pursuing research stock assessments to develop and improve methods. This should be done within the agency context, using the research time that is currently built into our planning efforts with the Southeast Fisheries Science Center. Our focus as a Council is on the operational assessments, broadly defined here as the analyses that provide scientific advice suitable for management. The SEDAR program was set up as a Council process to provide assessments for management advice and is not designed to accommodate research. Our desire is for the agency to develop the techniques, policies, and procedures that would allow such products to be completed within a reasonable amount of time, similar to what we experienced 10 years ago, when a benchmark could be done in 6 months. We agree, as stated on Line 4055, that a mature assessment enterprise needs to separate research efforts from operational efforts.

The Council supports the concept of stock monitoring updates as an efficient tool to ensure catch limits are accurate and based on timely information that reflects current fishery conditions rather than out-of-date projections. In our experience, a major source of controversy between managers and fishermen and the assessment outcomes is the lag between the terminal year of an assessment and management action. For the typical benchmark assessment conducted through SEDAR, terminal data are typically 2 years old before the assessment even reaches the Council. Any management changes will take some time, so the lag between terminal data and effective regulations is anywhere from 2.5 to 5 years. Conditions often change in this time, creating conflict between managers acting on information from the past and constituents responding to what they see today. The only way we see to break this cycle is to provide more frequent assessments completed in a more timely manner.

Prioritizing Assessments

The Council supports the national ranking and prioritization system. We agree with its use as a way to enhance and improve, but not replace, regional planning efforts as stated on Line 4022, and recommend that the first bullet in Table 10.4 under operational assessment be clarified accordingly. We have applied the NMFS prioritization tool to our stocks, working jointly with the SEFSC and our SSC and constituent advisors. Results of the initial application indicate that assessment needs well exceed current capabilities.

Right-Sized assessment enterprise

The Council has addressed the main components described in the portfolio approach (Line 3657) that lead to determining assessment needs. Based on past assessment priorities and needs discussion within the Council, we have a pretty good idea of what a “right sized” assessment enterprise needs to provide:

- Initial benchmark assessments for 25 key stocks.
- Updates of the key stocks every 3-5 years.
- Annual data updates (or “stock monitoring updates” as described on Line 3706) for the key stocks.
- Annual SAFE reports that provide removals including discards, effort, length and age trends, and survey abundance for all managed stocks.

Assessment Process Details, Section 10.5.2 and Table 10.4

The detailed description of major assessment components provided in Table 10.4 appear largely focused on issues with existing assessments. Although the description of operational assessments starting on Line 3697 stated benchmark assessments are within the realm of operational assessments, it did not address first time assessments. Nearly every detail regarding operational assessments seems applicable to existing rather than first time assessments, and nowhere is there a clear statement indicating how first time assessments are handled. We request that the agency clarify what it envisions as the process for future first benchmark assessments and whether they are considered operational or research in nature.

Because we must rely on stock assessments as the sole source of information on our fisheries, and the time between subsequent assessments is 3-10+ years, we are not currently in position to support the proposed concise, streamlined reporting. This would certainly change if we received SAFE reports detailing survey abundance, total removals including discards, and biological trends, along with the assessment information detailed under the “right sized enterprise” comment.

We are encouraged by the acknowledgement on Line 4123 that the assessment process is not complete just because the assessment itself is complete. Most assessment reports are highly complex, written for peer review by an SSC or independent panel. They do not provide plain language summaries that are useful and understandable to the full range of constituents. While in the past SSC members and Council staff have attempted to bridge that gap, the simple reality is that the complexity of modern assessments, created by highly trained, increasingly elite scientists, largely prevents ready translation by less skilled individuals. We strongly support agency efforts to ensure assessments include succinct non-technical reporting and summaries that ensure results and uncertainties are available to managers and stakeholders.

In conclusion, we recognize that the stock assessment enterprise in the Southeast lags behind other regions due to the lack of historical investment in data and assessments, compounded by diverse ecosystems and fisheries. While the improvements provided through the 2001 SAIP and the SEDAR process have increased the number of our stocks managed on the basis of adequate, peer-reviewed assessments, we still have a long road ahead to address the many unassessed stocks that remain and to implement an efficient and responsive assessment enterprise. We simply lack the robust single-species assessments that are the critical foundation on which to build more complex, multi-species or ecosystem integrated models suggested in this SAIP, and it is not clear that the improvements proposed here will get us there. Overall, the document would benefit from a clear listing of goals and objectives intended to improve stock assessments, including prioritized needs that could be used to justify the additional resources required to continue the improvements begun with the 2001 plan.