

DISCUSSION PAPER

Potential inclusion of marine protected areas in Snapper Grouper Amendment 13B August 23, 2005

A. Background

The Council has been in the process of developing marine protected areas (MPAs) since the early 1990s and the MPAs that are currently being proposed were developed by the Council as a result of a lengthy, deliberative process. The Council concluded in 2000 to move forward with using MPAs as a management tool to aid in the recovery of overfished stocks and to ensure the persistence of healthy fish stocks, fisheries and habitats. Specifically the Council saw MPAs as a viable mechanism that could maintain the optimum size, age, and genetic structure of slow growing, long-lived deepwater snapper grouper species.

The potential for using MPAs as a management tool for the snapper grouper fishery first originated with the Council's Snapper Grouper Plan Development Team (PDT). This technical group prepared a report (April 1990) entitled "The Potential of Marine Fishery Reserves for Reef Fish Management in the U.S. South Atlantic." The PDT offered this approach because they believed it was the only viable option for maintaining optimum size, age, and genetic structure of slow growing, long-lived species over the long-term. The Council received an extensive briefing on marine reserves at the February 1990 Council meeting. This provided an opportunity for the Council to discuss marine reserves as a concept and to hear about experiences with reserves in other parts of the world.

Marine reserves were initially considered as a possible option in early discussions on Amendment 4 to the Snapper Grouper Fishery Management Plan. However, the Council determined the reserve concept should be addressed separately and scheduled scoping meetings in each of the states which were held in 1992. During this scoping process support for and against the concept surfaced. The Council reviewed the scoping information at the January 1993 meeting and decided to (1) recommend to National Marine Fisheries Service that they convene a Scientific Review Panel to review the concept of MPAs and (2) drop consideration of the marine reserve concept at that time.

A scientific review of the 1990 Snapper Grouper PDT report was completed by the Scientific Review Panel as requested by the Council. The panel consisted of international experts with different experience in fishery science, marine reserves, ecology, fish genetics, sociology, and economics. The Scientific Review Panel concluded that properly designed marine reserves in combination with other management measures can be an effective management tool for reef fish resources in the U.S. South Atlantic region subject to the following conditions: (a) biological, ecological, social, and economic objectives of the marine reserves are clearly specified; (b) the relative biological, ecological, and economic impacts of marine reserves in the context of other fishery management measures have been estimated for various constituents; and (c) the development of marine reserve proposals proceed with the involvement of all constituencies and stakeholders.

Also the Scientific Review Panel concluded that recognizing the alarming declines in stocks of key fishery species, the panel would urge that marine reserve options be considered immediately as part of a comprehensive fisheries management plan to prevent irreversible loss to species and fisheries.

In further developing Snapper Grouper Amendment 8 (and later Amendment 9), the Council realized that severe impacts would be felt by fishermen if necessary percentage reductions in catches of overfished species were imposed to achieve the mandated fishery management goals. Marine reserves once again surfaced as a potential alternative to fisheries closures.

In 1998 after deciding to reconsider the possibilities of marine reserves, the Council proceeded to take steps to initiate a fact-finding process using the Marine Reserves Committee and Advisory Panel (AP). An Action Plan was then developed that included three phases: Phase I. Planning/Criteria Development, during which criteria were developed and questions were raised about the proper size, placement, and regulations within any potential marine reserves; Phase II. Decision Phase in which the Council, drawing on input from 3 rounds of scoping meetings, a Marine Reserves Workshop, and the Marine Reserves AP made the decision that marine reserves were a necessary management tool for snapper grouper management; and Phase III. Implementation.

When the informal meetings were held in 2000, the Council's intent was to begin a dialogue with stakeholders about the possibilities of using marine reserves as a management tool and not discuss specific management measures or specific sites. The meetings were not held by the Council, but Council members and staff made themselves available to meet with any group that made a request. Between January and March of 2000, Council members and staff attended 15 meetings representing commercial fishing groups, recreational fishing groups, and conservation organizations. A total of 291 people attended these meetings. Through the informal meeting process the Council was able to gauge public support for marine reserves and discuss with them all possible options for managing overfished snapper grouper species to determine whether marine reserves were a tool that the Council should consider using.

During May and June 2000 the Council held another round of eight scoping meetings on marine reserves to give the public an opportunity to comment before the Council developed a position on whether or not to move forward with developing marine reserves as a management tool. As with the informal meetings, the Council had not yet discussed specific boundary options but was ready to make a decision on the general concept of marine reserves.

The stakeholders voiced many different opinions on the use of marine reserves. There was an equal amount of support and opposition for no-take marine reserves, but many different variations were offered from all sides. Many groups were in support of protecting known spawning areas from fishing and creating artificial habitats and prohibiting fishing in these areas.

As a result of the input received from the 2000 scoping meetings, the Marine Reserves Workshop, advice from the Marine Reserves Areas Advisory Panel, the Scientific and Statistical Committee and the Snapper Grouper Assessment Group, the Council voted to move forward with the utilization of marine reserves.

After deciding that marine reserves were a management tool that was needed to help recover overfished snapper grouper species, the Council then needed to determine the appropriate locations to site marine reserves and the appropriate regulations within the boundaries. Continuing with the Council's philosophy of building support for marine reserves from the ground up, the Council looked to stakeholders to suggest where marine reserves should be placed, through the scoping process. In the Spring of 2001 the Council held a final nine scoping meetings. The public was provided charts that showed known hardbottom areas off the South Atlantic coast and was asked to use their experience and knowledge of snapper grouper species (specifically deepwater snapper grouper species) to suggest areas the Council may want to consider designating as marine reserves. As a part of this scoping process, the Marine Reserves Advisory Panel was asked to also suggest areas. As a result of this process over 40 sites were suggested and originally considered as potential marine reserves.

At their February 2001 meeting, the Council's Marine Reserves Committee discussed the difficulty managers and stakeholders were facing given that many different agencies were looking at marine reserves, marine sanctuaries, marine protected areas, etc. The different nomenclature associated with this management tool made things very confusing to the public and managers alike. The Committee determined that the term "marine reserves" was coming to imply an area that allowed no fishing. This was contrary to the Council's definition and intent. In order to be more consistent with national definitions the Council adopted the term Marine Protected Areas (MPAs).

During 2001 and into 2002 the Council, with help from its advisors, began working to determine which sites would best meet the Council's management objective to protect deepwater snapper grouper species. In August of 2001 the Council held an unprecedented "Mega-AP" meeting of the Habitat, Coral, Snapper Grouper, MPA, Law Enforcement, and Wreckfish advisory panels. The APs were asked to help the Council select sites that would be the most beneficial to the overfished, deepwater snapper grouper species using their various and vast knowledge, understanding that the Council's intent was to look at sites that protect more inshore snapper grouper species further down the line.

Later in 2001 the Snapper Grouper Assessment Group, the Scientific and Statistical Committee, and the Snapper Grouper AP met with the Council's Snapper Grouper Committee to provide additional input on the possible MPA sites. Based on input from the SSC, APs, and the Snapper Grouper Committee, and the Council then instructed staff to develop an options paper for Snapper Grouper Amendment 14 with an initial level of analysis of sites the Council felt met the criteria of protecting overfished, deepwater snapper grouper species. The sites that meet the criteria of protecting overfished, deepwater snapper grouper species were included in the Informational Public Hearing

Document and taken out to public hearing in early 2004. At those public hearings social and economic data were collected to help staff refine sites and analyze the impacts of the proposed sites.

The information gathered at the Informational Public Hearings was useful in helping staff begin to assess the social and economic impacts of each individual site. It became clear that the location of a few of the sites may need to be tweaked in order to achieve the Council's goals and lessen social and economic impacts. If the Council chooses to include MPAs as a management alternative in Amendment 13B

B. Potential inclusion in Amendment 13B

These sites could be included in Amendment 13B without holding up development of the Amendment because they have already been through the full scoping process and have been through one round of public hearings. A Notice of Intent to develop MPAs (at that time through Amendment 14 to the Snapper Grouper Fishery Management Plan) was published on January 31, 2002.

The deepwater grouper complex includes the following species: speckled hind, Warsaw grouper, misty grouper, yellowedge grouper, snowy grouper, blueline tilefish, and golden tilefish. Of these species snowy grouper are overfished and snowy grouper and golden tilefish are undergoing overfishing. Speckled hind and Warsaw grouper are overfished (based on SEDAR these are unknown) but not undergoing overfishing and the remaining species are unknown.

The ranges, reproductive biology, and habitat utilization patterns of these fish are not completely known. MARMAP fishery independent data, however, document the occurrence of most of the species from central Florida to southern North Carolina; snowy groupers were rarely collected south of South Carolina (Jennings et al., in SAFMC 2001).

The best information on reproductive patterns and habitat utilization is presented in Parker and Mays (1998) and Lindeman et al. (2000). Generally speaking, speckled hind and the deepwater groupers listed above are protogynous hermaphrodites, associated with hard bottoms and probably move from the mid-shelf to deepwater as they age. Golden tilefish are associated with deeper waters from the juvenile stage on, and are found mud bottom.

MARMAP collections of deepwater groupers during the spawning season has occurred predominantly on hard bottoms on the shelf-break, and typically throughout the range of the species (Jennings et al., in SAFMC 2001). Little is known about aggregation behaviors in these species, although large numbers of at least some species are found during the spawning season on previously unfished structures in the appropriate depths (e.g., snowy grouper off North Carolina). Golden tilefish in reproductive condition have also been collected.

The seven sites currently under consideration are believed to hold the appropriate habitat and be the appropriate depth for these deepwater species of concern as well as some mid-

shelf species that are experiencing overfishing. For example, spawning vermilion snapper have been collected in proposed site “South Carolina B”. Two of the sites are currently proposed to be experimental artificial reef MPAs.

C. The role of MPAs in the current Snapper Grouper management regime

The management objectives of the Snapper Grouper Fishery Management Plan were last outlined in Amendment 13A. They included the objectives to promote orderly utilization of the resource; minimize habitat damage; evaluate and minimize localized depletion; and to minimize bycatch in the snapper grouper fishery. Including marine protected areas (MPAs) as a management tool in Amendment 13B will complement actions proposed in the Regulatory Amendment and will help the Council in meeting these important objectives:

I. Promote orderly utilization of the resource – in the upcoming Regulatory Amendment to the Snapper Grouper Fishery Management Plan the Council will be considering alternatives to end overfishing on snowy grouper and golden tilefish. Those alternatives all specify significant quota reductions. Alternatives also include specifying a trip limit that will allow the season to remain open as long as possible and maintain a market presence for these fish. It is reasonable to consider that by restricting fishing in the areas that these species are known to aggregate, directed fisheries will not occur in these areas and assist in extending the fishing season.

II. Minimize habitat damage - The Council has a strong history of being proactive when it comes to protecting habitat and designating MPAs will be in step with this philosophy. While there is little evidence that the snapper grouper fishery as currently prosecuted damages habitat, new fisheries could develop for deepwater species that aren't currently targeted or being managed and MPAs already in place could deter exploration. Creating MPAs as a precautionary approach to protecting habitat would be similar to management action the Council took to protect *Sargassum*, where a potential fishery could have greatly impacted EFH and protected resources. Designation as an MPA may also help to prevent potential habitat damage that may be incurred by any future oil and gas exploration in these environmentally important areas.

III. Minimize localized depletion - high fishing mortality rates have been documented to result in localized depletion of some species in certain areas. Certain species are overfished throughout their range; however there are particular areas where the overfishing rate is more severe than others. There may also be some cases where a stock as a whole is not overfished, but the abundance in a specific area has been significantly reduced. As mentioned above, it is believed that at least some of the proposed MPA sites hold seasonal aggregations of deepwater species (e.g., Snowy Wreck) and the Council's intent is to protect these vulnerable aggregations.

IV. Minimize bycatch - prohibiting fishing in these deepwater areas will serve as an added protection to the alternatives that close the fishing season once the quota is met for

the deepwater species. Some of these sites also contain vulnerable, mid-shelf species (e.g., vermilion snapper and red porgy) that may be caught incidentally while targeting deepwater species. Consequently, protecting these sites year round will prevent bycatch of deepwater species that have high discard mortality rates.

D. Options for the Committee and Council's consideration:

Option 1. No action. MPAs will be addressed in the Council's Fishery Ecosystem Plan and Comprehensive Amendment.

Option 2. Move consideration of MPAs into Snapper Grouper Amendment 13B.
Note: the Council may want to consider whether it is appropriate to include the areas that are proposed experimental artificial MPAs in Amendment 13B.

Option 3. Others ??

Proposed Snowy Wreck MPA Option 1 and Option 2

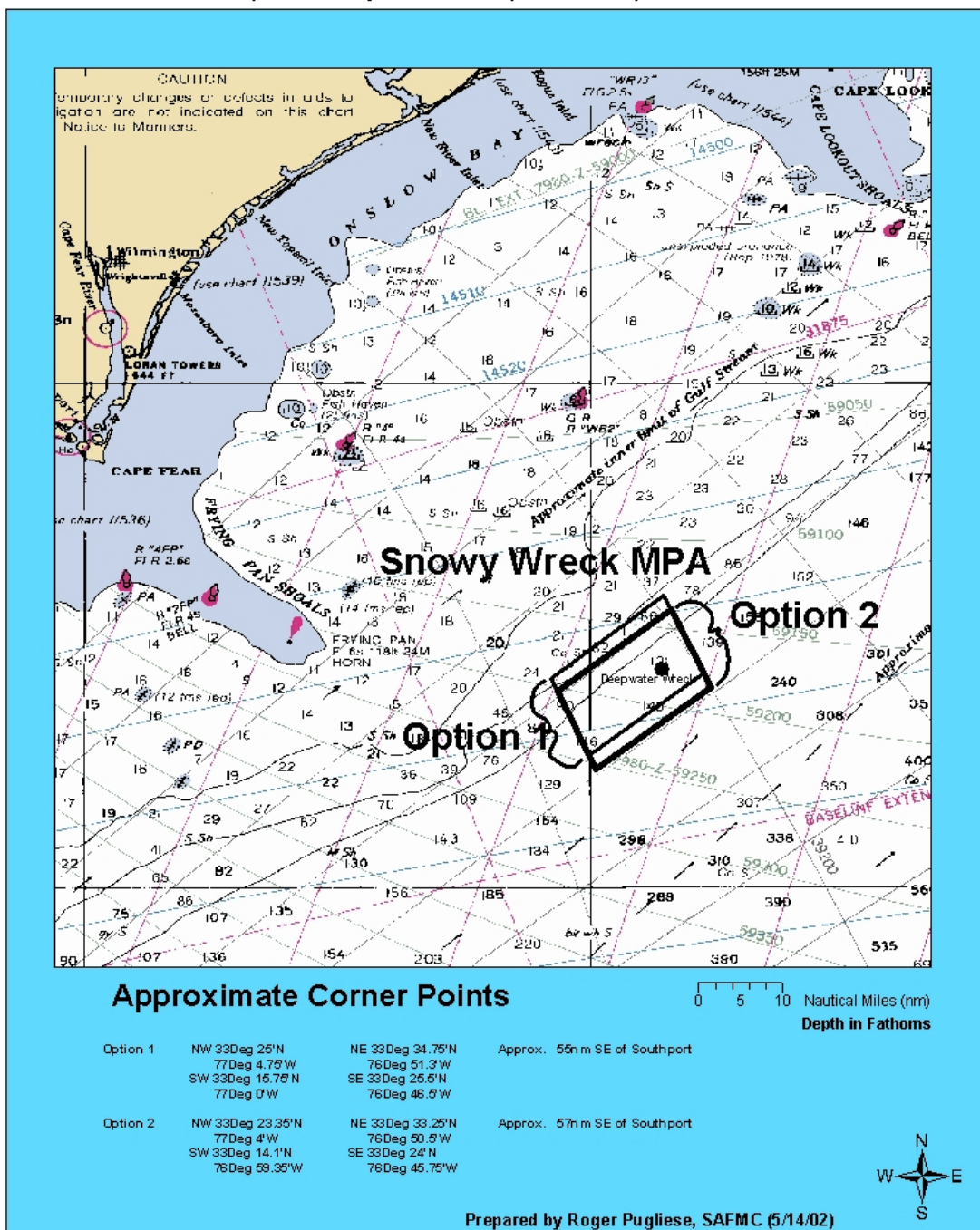


Figure 1. Proposed Snowy Wreck Marine Protected Area

Proposed South Carolina A MPA Option 1, Option 2 and Option 3

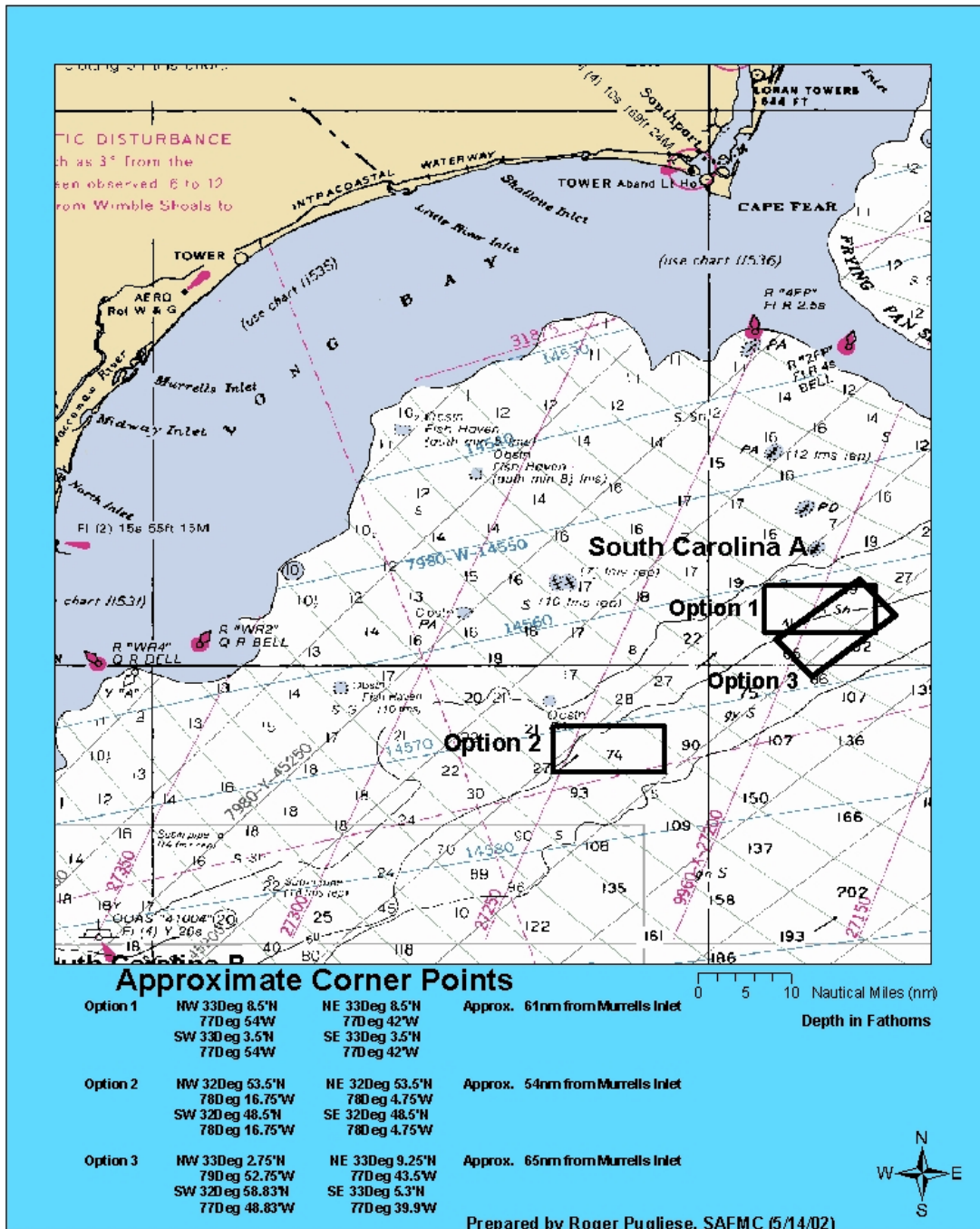


Figure 2. Proposed South Carolina A Marine Protected Area

Proposed South Carolina B MPA Option 1 and Option 2

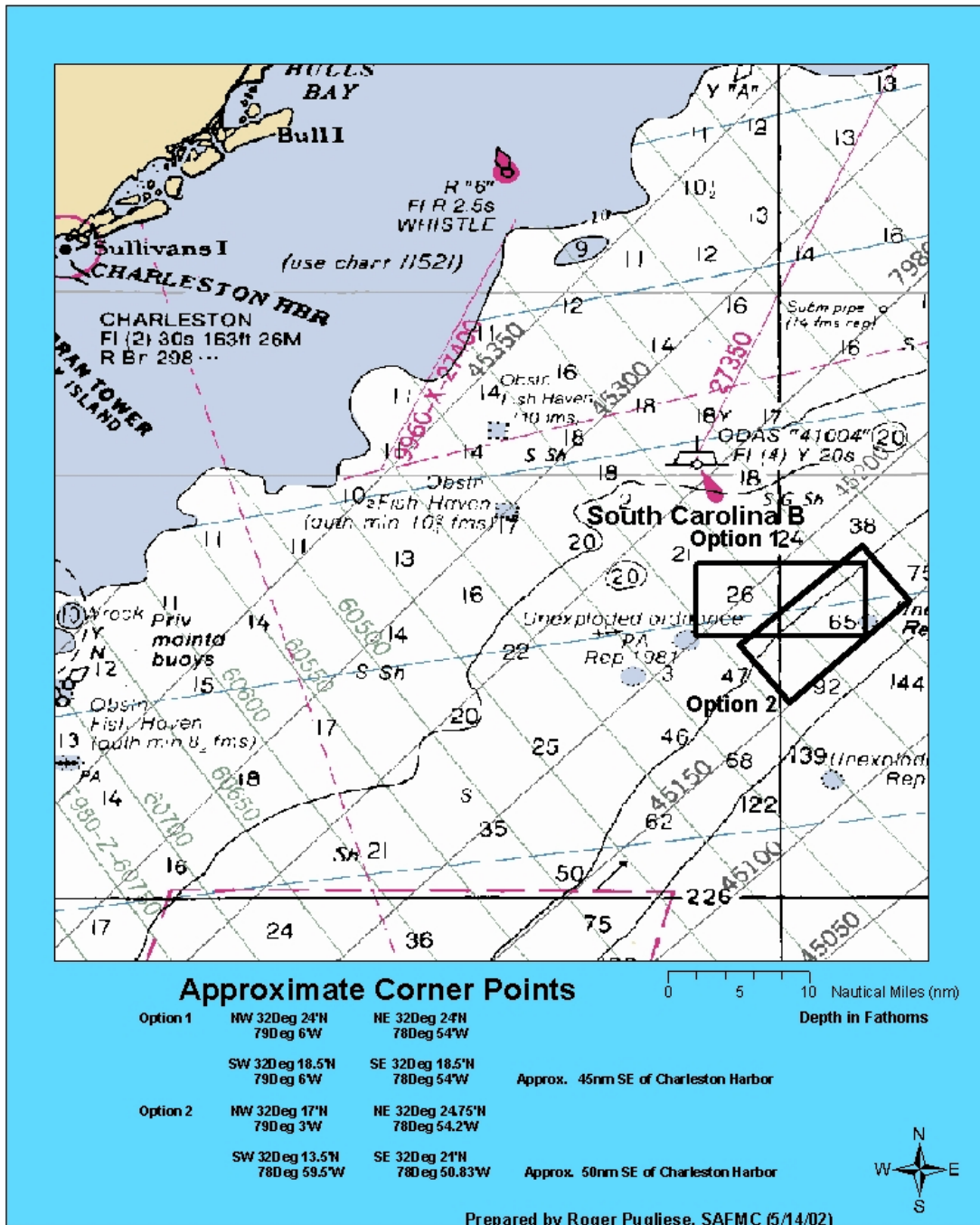


Figure 3. Proposed South Carolina B MPA

Proposed Georgia MPA Option 1 and Option 2

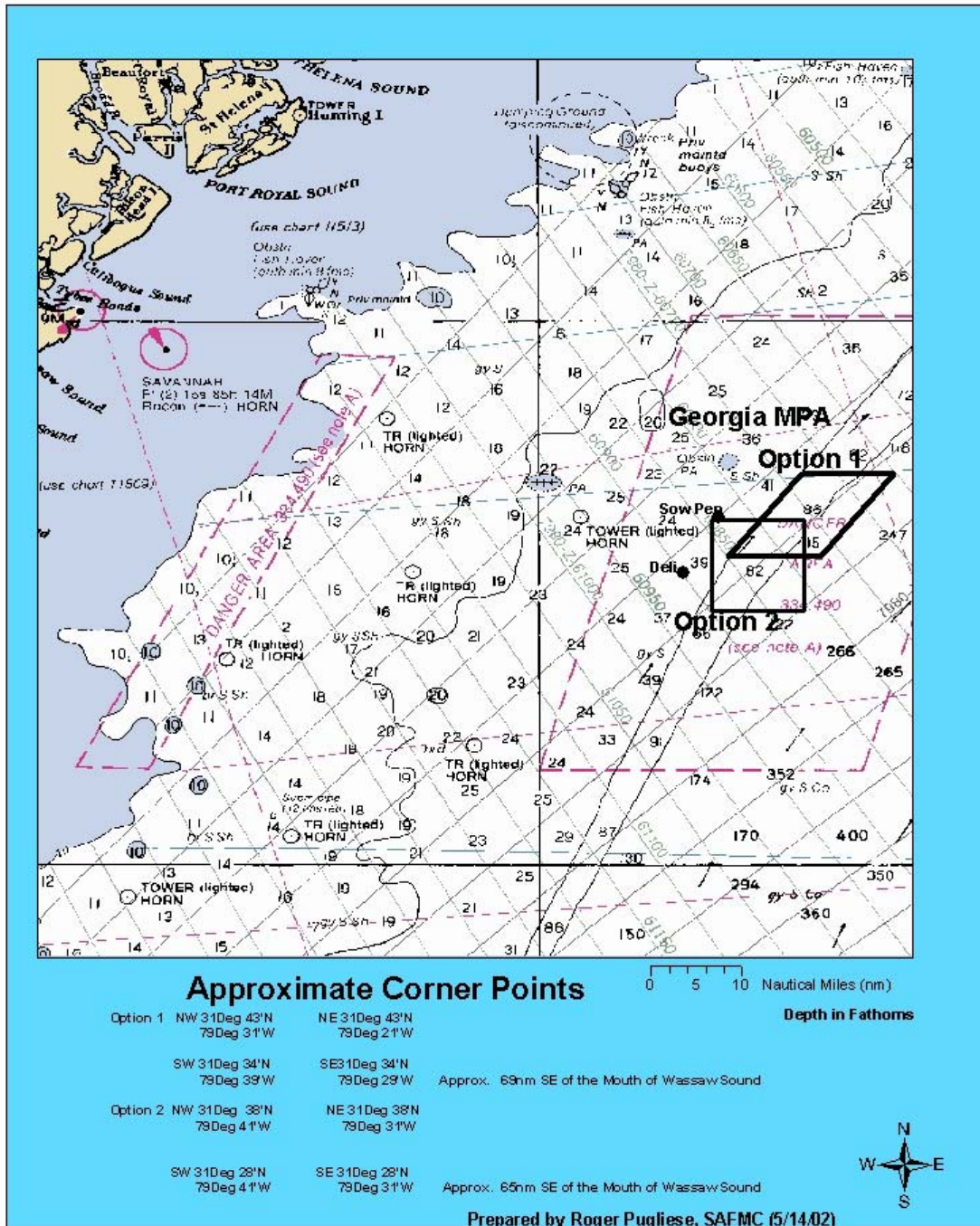


Figure 4. Proposed Georgia MPA

Proposed North Florida MPA Option 1 and Option 2

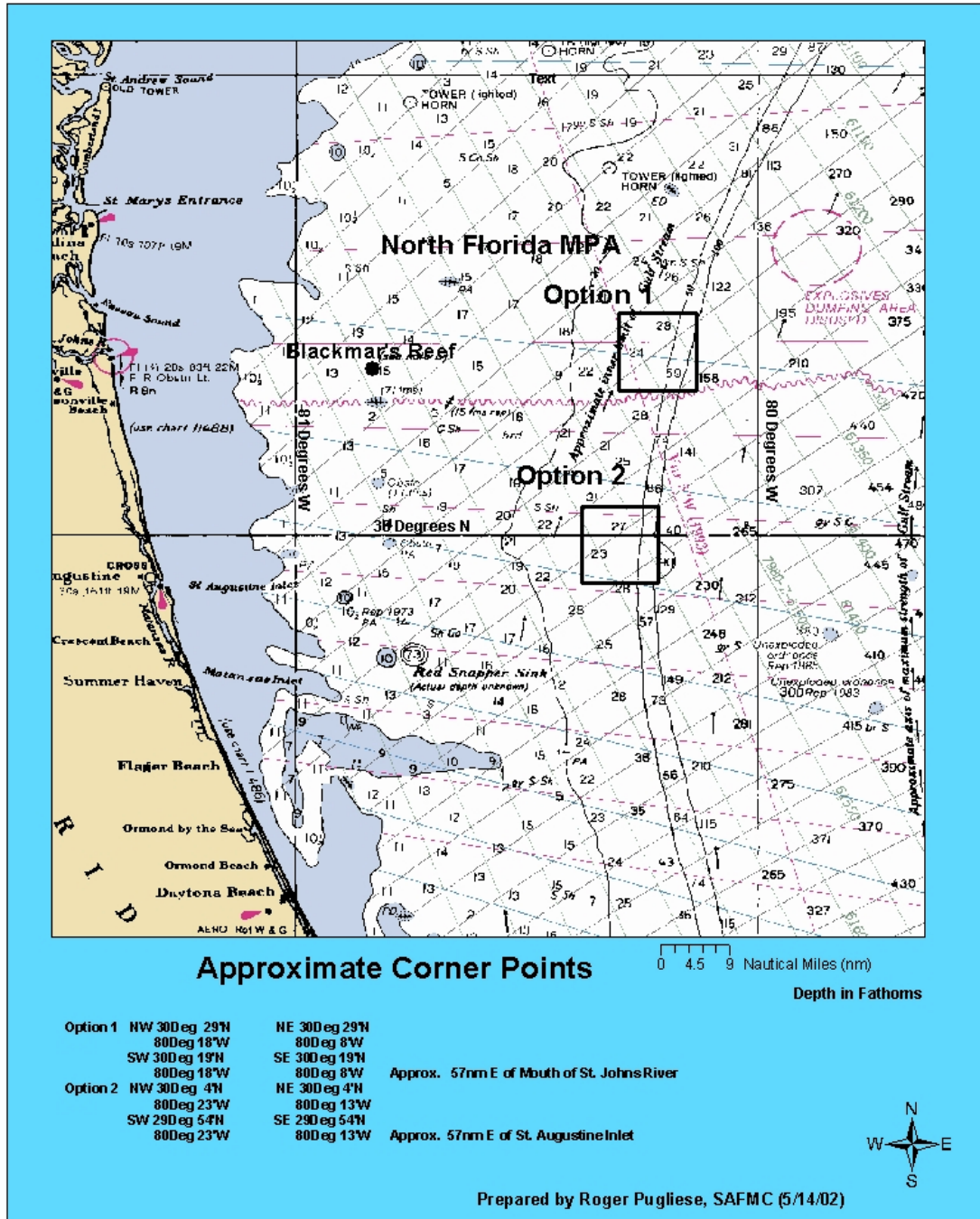


Figure 5. Proposed North Florida MPA.

Proposed MPA Option: Sea Bass Rocks

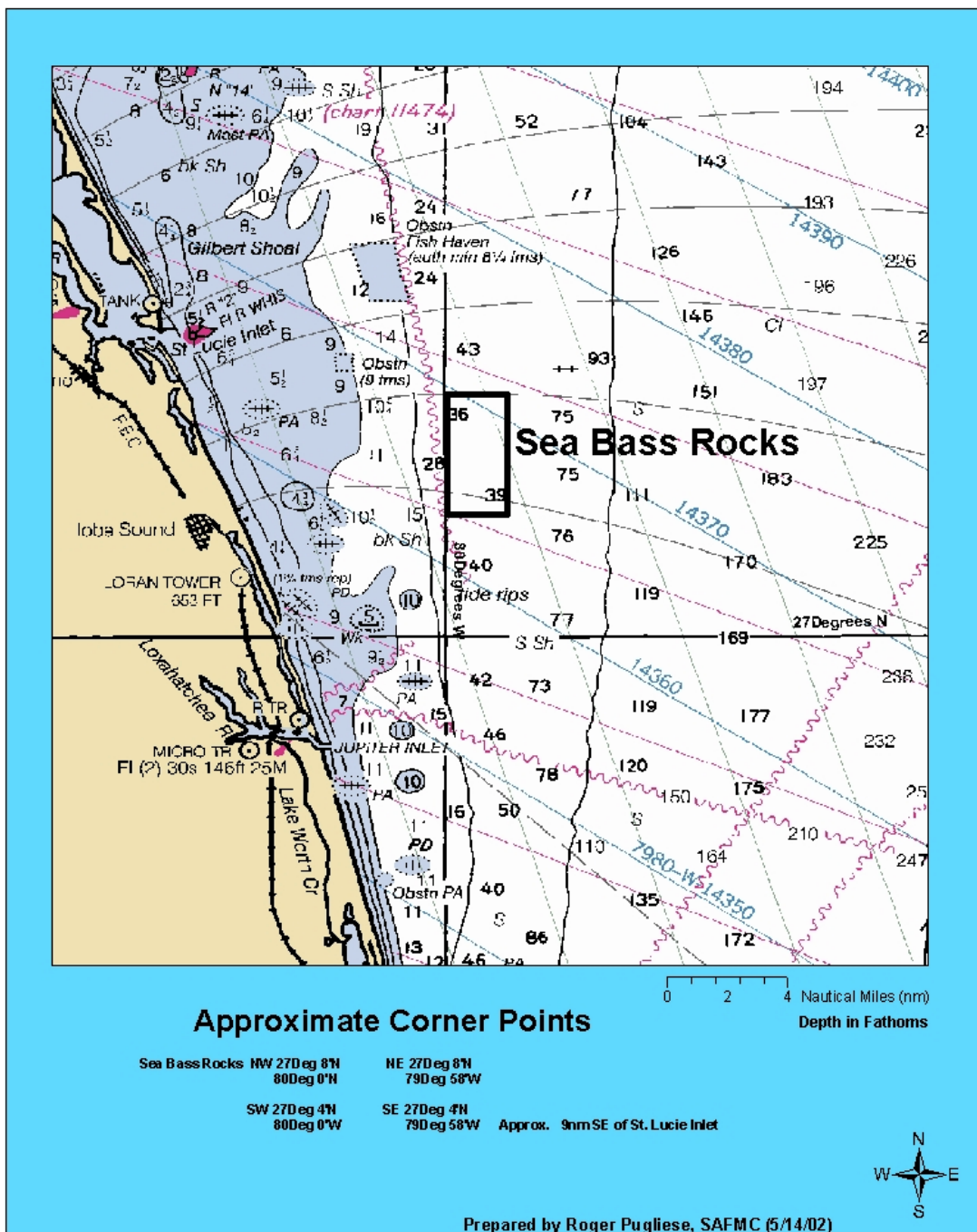


Figure 6. Proposed Sea Bass Rocks MPA.

Proposed MPA Option: Florida East Hump and Unnamed Hump

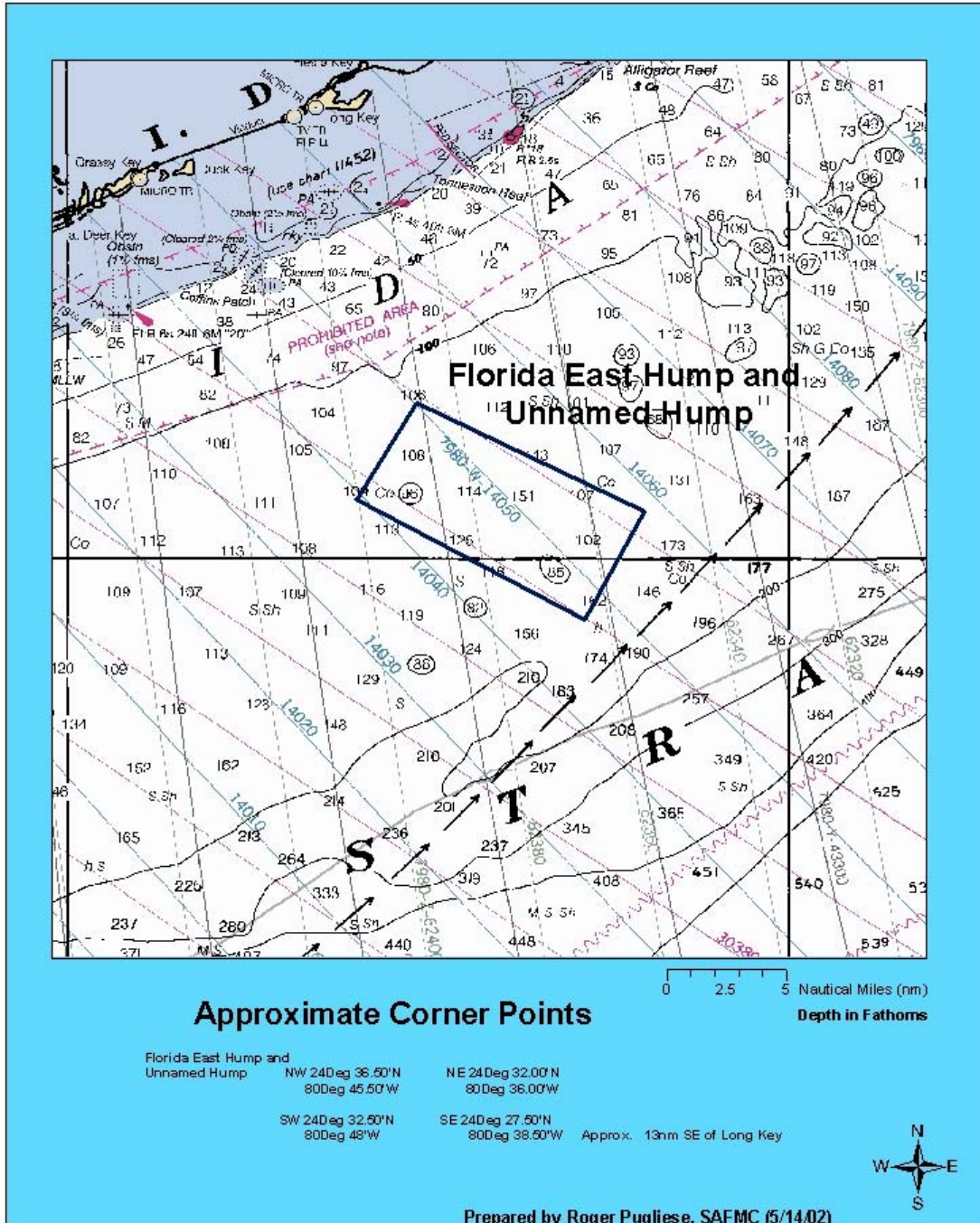
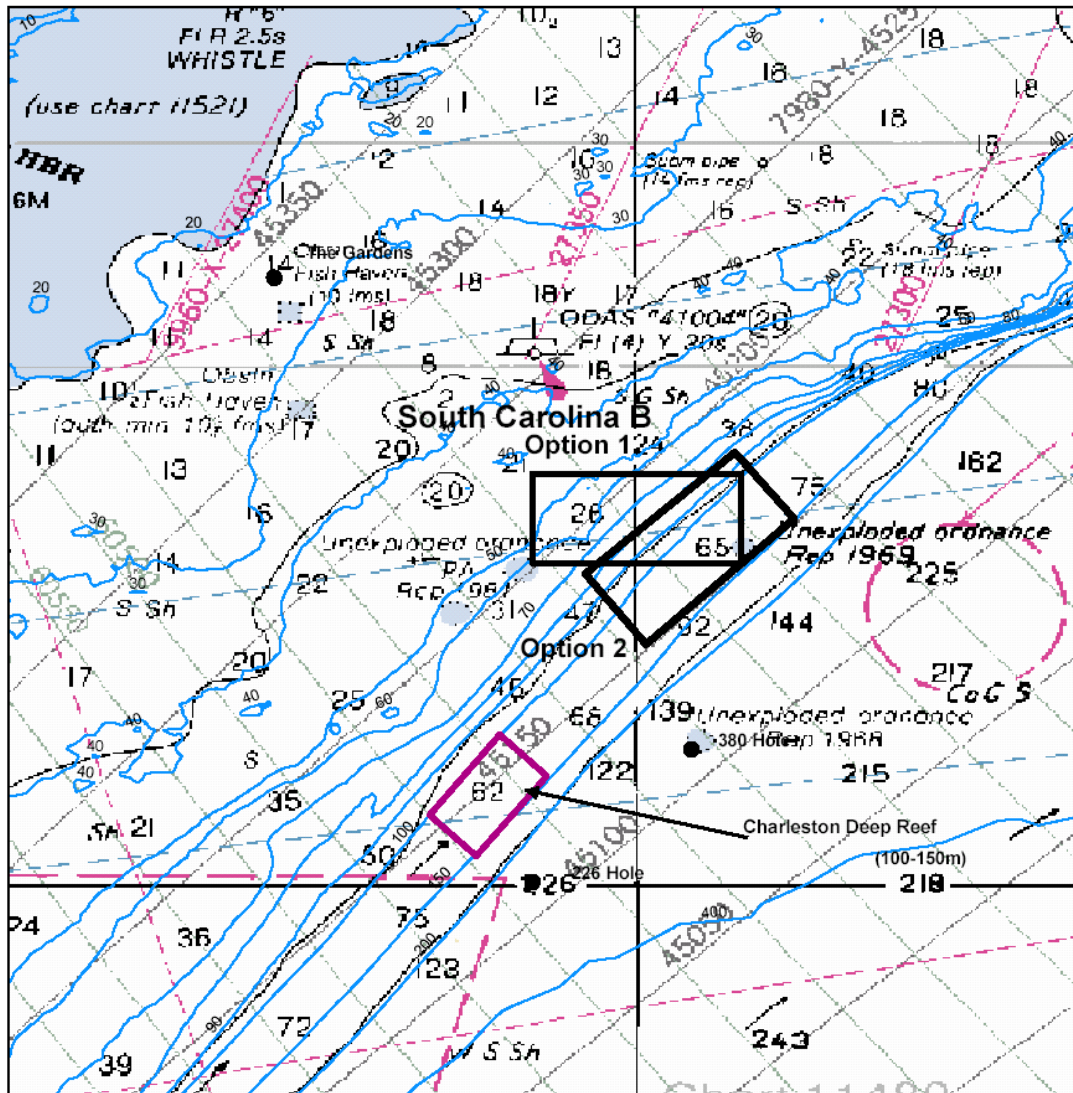


Figure 7. Proposed East Hump/Unnamed Hump MPA



Approximate Corner Points

0 2.5 5 Nautical Miles (nm)

Deep Reef (Approximate Coordinates)		South Carolina B		Depth in Meters
NW 79Deg 12'W	32Deg 4'N	Option 1	NW 32Deg 24'N 79Deg 6'W	NE 32Deg 24'N 78Deg 54'W
SW 79Deg 9.3'W	32Deg 31.5'N		SW 32Deg 18.5'N 79Deg 6'W	SE 32Deg 18.5'N 78Deg 54'W
NE 79Deg 7.75'W	32Deg 8.5'N			Approx. 45nm SE of Charleston Harbor
SE 79Deg 5'W	32Deg 6'N	Option 2	NW 32Deg 17'N 79Deg 3'W	NE 32Deg 24.75'N 78Deg 54.2'W
			SW 32Deg 13.5'N 78Deg 59.5'W	SE 32Deg 21'N 78Deg 50.83'W
				Approx. 50nm SE of Charleston Harbor



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Figure 8. Proposed Charleston Deepreef MPA

