

Mid-Atlantic Fishery Management Council

800 North State Street, Suite 201, Dover, DE 19901 Phone: 302-674-2331 | FAX: 302-674-5399 | www.mafmc.org Michael P. Luisi, Chairman | G. Warren Elliott, Vice Chairman Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: December 2, 2016

To: Council

From: Rich Seagraves

Subject: NJ SMZ Request

Below please find the summary of public comment received on the NJ DEP request to designate all 13 of its permitted reef sites in the EEZ as Special Management Zones(SMZs). In addition, the Monitoring Team Report distributed at the October Council meeting has been revised to correct Table 2. As noted below, all written public comments received by the Council are available on the Council website.

Public Hearing Summary

Public hearings were held on the NJ request to designate 13 of its permitted reef sites in the EEZ in Brooklyn, NY, Toms River, NJ, and Cape May, NJ. A total of 26 individuals testified with 13 in favor of establishing all 13 NJ reef sites as SMZs and 13 opposed to SMZ designation (see individual hearing summaries below).

All of the individuals in favor of SMZ designation represented the recreational fishing and diving communities and the party/charter boat fleet. The primary reason for their support of the SMZ designation was the proliferation of gear conflicts with pot/trap gear being fished directly on the reef sites. They cited the loss of terminal fishing tackle (hooks, bottom rigs, lures and sinker, etc.) that get snagged on commercial traps, buoy and ground lines (costs them money); fouling of anchors on commercial gear; difficulty in fishing the areas due to trap congestion on some sites; the proliferation of lost traps (ghost gear) which continue to foul recreational fishing gear; lost bottom time for divers; commercial gear on the reefs is a hazard to navigation and poses safety risks; and failure to designate the reefs as SMZs will result in the loss of SFR Program funding which is necessary to build new reefs and to maintain the existing reef system off the coast of New Jersey.

All of the individuals in opposition to the designation of all 13 reef sites as SMZs were from the commercial sector and included commercial and subsistence pot/trap fishermen, representatives of commercial fishing organizations, owners of seafood markets or restaurants, and one seafood consumer. The reasons for their opposition included: in their opinion no gear conflicts exist or they are over-stated; prohibition of commercial gear is fundamentally unfair - they want access to the reef sites (especially for small scale inshore fishermen); lack of access to inshore reefs will increase their costs and reduce supply of seafood to local markets (especially to supply the summer tourist

market); they are seeking a compromise that will allow some access to the reefs by the commercial sector; and SMZs which prohibit commercial gear on the reefs are in violation of the National Fisheries Enhancement Act.

Written Comments

The Council received 642 written comments relative to the request by the State of New Jersey to designate all 13 of its permitted reef sites in the EEZ as SMZs. Written comments were received in the form of emails, post cards and letters (all comments are available for inspection on the Council website). The vast majority (628 or 98 %) of the written comments were in favor of designating all 13 sites located off the coast of New Jersey in federal waters as SMZs. The Council received 13 written comments in opposition to the designation of all 13 reefs as SMZs; those in opposition included primarily commercial fishermen who utilize the reefs. As was the case of the oral public testimony described above, those in favor represented the recreational fishing and diving communities. The reasons for supporting the SMZ designation were the same as was described above based on public hearing testimony. In general, those in support of the SMZ designations want all 13 sites designated as SMZs with gear restrictions imposed year round allowing only hook and line and spear fishing (including the taking by hand). Those in opposition are seeking a compromise which will allow some access to the reef sites by commercial trap gear (in particular, see letter from W. Chew which outlines options he proposed).

New Jersey SMZ Request Public Hearing Brooklyn, NY November 16, 2016

The hearing was opened by hearing officer Mr. Anthony DiLernia (MAFMC member) at 7:15 PM. Mr. Seagraves gave a presentation of the report of the Monitoring Team which was developed as a result of the New Jersey request for designation of its artificial reefs in the EEZ as SMZ's.

Doug Stickler supported the designation of all 13 artificial reef sites permitted to the state of New Jersey in the EEZ as SMZs as recommended in the Monitoring Team's report.

Steven Cannizzo, fishing united.com, read the following statement: "I am submitting the following personal public comment regarding the proposed rule on the New Jersey Special Management Zones ("SMZs") measures for artificial reefs. This has been a contentious fair use and access issue for more than a decade between a small number of commercial fishermen deploying fixed gear, such as pots and traps, to target lobster, conch, and bottom fish along with those using gill nets around artificial reefs along the New Jersey coastal shoreline.

New Jersey has been one of the preeminent states on the East Coast in deploying various reef material over the past three decades and it has led to the creation of 15 artificial reefs; two within state territorial waters and 13 which are deployed at various depths and nearby distances in federal waters and now with a near future proposed A.R. footprint possibly being deployed north of Barnegat Inlet.

The creation of artificial reefs or as we are now starting to recognize as "ecosystem-enhancement" projects is based upon the premise to increase fishing thus seafood harvesting, along with

providing increased diving opportunities for all user groups. But a growing conflict has arisen from a segment within the recreational fishing and dive community that has now led to an attitude of a zero-sum situation with the possible prohibiting of the extremely limited pot trap and gill net activities that are ongoing at this time on New Jersey artificial reefs.

The divisive rhetoric we have seen in newspapers, websites and in social media from a number of recreational anger groups range from shortsighted to over-exaggerate the conflict as fishermen especially within the for hire sector have for years dealt with and worked around the fixed gear that has been deployed on and around artificial reefs.

This is not an issue about fish conservation but in fact a use, access and gear conflict divide which should be debated over and worked out amongst your user groups in order to reach some consensus of compromising on the reasonable full access use of a small portion of New Jersey artificial reefs.

Time and again as the New Jersey "pots on the reef" issue has been raised, anglers complain about lost hook and line gear, yet fail to neglect to mention that in the targeting of any regional top and more so bottom species during the recreational fishing season, will also result in the loss of hook and line terminal fishing tackle. It is to be expected when fishing next to or within any wreckage, rocks, or man-made debris created structure.

I am not trying to sanitize or minimize the issue with commercial fixed gear causing the loss of fishing tackle or that the gear itself when deployed during certain periods of the fishing season will take a higher proportion of legal size fish in contrast to hook a line gear. This though is an area where fishermen should be willing to sit down and work out a solution that would provide access on, and I'm using as an example, on a rotational basis - three the current 13 artificial reefs that are in federal waters to limit such conflicts in the future.

Numerous compromises exist and have been presented over the years and we as fishermen should be open to discuss both a reasonable and flexible commercial fishing "full use alternative" during the season upon and within proximity to a limited number of these artificial reefs from the Shark River area and southward to Cape May providing access to fixed gear.

I would ask that those in both the New York and New Jersey for-hire sector to consider supporting an effort for all user groups to come up with a compromise in order that a small group of commercial fishermen are not disenfranchised by the call of "no pots on the reef".

As we have seen with the New Jersey artificial reef program, it does provide the commercial, for hire, recreational angler and sport diver, not only with nearshore access to enjoy their activities, but as much as they can generate a significant economic benefits for all user groups.

The hearing was closed at 7:40 PM.

New Jersey SMZ Request Public Hearing Toms River, New Jersey November 16, 2016

The hearing was opened by hearing officer Mr. Thomas Baum of the New Jersey Department of Environmental Protection at 7:05 PM. Mr. Seagraves gave a presentation of the report of the Monitoring Team which was developed as a result of the New Jersey request for designation of its artificial reefs in the EEZ as SMZ's.

An unidentified fishermen commented that he has fished the reefs for 25 years and there is no gear conflict. He also stated the revenue numbers are completely wrong – he himself caught more than \$25,000 worth of fish on the reefs.

Ron Nachman, representing South Jersey Salt Water Anglers and Fortescue Anglers stated that to say there is no gear conflict is not true. He gave an example where he was fishing on a reef and had a commercial fishermen try to give him a ball of tackle, hooks and sinkers he had gotten off of his pots that day. This illustrates the severity of the problem. They are also vigilant when fishing the reefs, constantly being on the look-out for pot gear which they might tangle their gear in. There is a gear conflict and that is why they support the SMZ designation.

Dave Spendiff, representing Village Harbor Fishing Clubs, stated that his club helped to build three of the reef sites and has been involved in the development of the reef program since the early days of the program. The members of his club fish the reef for species like summer flounder and are constantly complaining about tangling their gear on commercial gear on those reef sites. There is certainly a conflict and the loss of the fishing tackle costs them money – they would like to see the situation resolved through the designation of the 13 reef sites in the EEZ as SMZs.

Bill Figley, representing Beach Haven Marlin Fishing Club which consists of 300 fishing members stated that his club has donated enough money to the reef program to build 8 reefs. There are definitely problems with tangling gear on commercial traps which are basically like four foot sections of chain link fence. They fish the reefs in two ways – drifting for fluke and anchoring on structure for species like tog and black seabass. They get their gear snagged in traps and also get anchors fouled in the ground lines of the trap gear. It is very discouraging when you get to a reef that you paid for and it is covered with high fliers. You know there is a lot of gear down there but you are not sure exactly where. When you put hundreds of traps down with thousands of feet of line you create a quagmire of obstacles that make it difficult to fish and they end up losing a lot of gear. Ghost gear is also a problem – lost traps continue to snag recreational hook gear for years after they are lost which adds to the problem. This gear conflict has led to the loss of \$300,000 worth of funding for the NJ reef program. The loss of fishing tackle is not something that would get reported to the Coast Guard but the conflict is real. Over the past couple of years the problem has gotten worse and for this reason his club supports the monitoring teams recommendation to designate all of the 13 NJ reef sites as SMZs which should restrict the gear types to hook and line, spear and taking by hand. Mr.Figley presented the Council with a petition developed by Reef Rescue with 4556 signatures supporting the ban on pots on public reefs (see Council website to inspect this petition).

Eric Engard, Commodore of the Forked River Tuna Club, agreed that there are gear conflicts on the reefs. All of our members have experienced gear conflicts on the reefs. Their club has purchased concrete, reef balls and tanks to deploy on the reef sites. They are adamantly in support of the designation of all 13 reef sites as SMZs.

Scott Mackey, representing Garden State Seafood Association, noted that he will also be submitting written comments. It is worth noting that there is a historic nature to the reef program when it was being developed – both user groups have contributed funds to the reef program. While it is true that the recreational component is larger he questioned the Corporate donation category – the only value the commercial sector gets credit for is the donation of vessels and there was also in-kind contributions from the commercial sector (dock space for deployment) that is not captured in the analysis. He also questioned the state contribution in terms of staff time and other in-kind matching – both sectors should get credit of those state contributions because both sectors contribute to the NJ tax base. It should be noted that the large whale take reduction plan requires sinking ground lines on all trap gear so this should reduce the snagging of lines on ground gear. He also thought the gear conflict problem has been overstated. In addition, he would like the Council to consider other alternatives that might include some sort of sharing agreement between the two groups like was done for the NJ reef in state waters.

Greg DiDomenico, GSSA Executive Director, stated that we have been here before – all they want is to come to some resolution of this issue. He does not doubt there are some conflicts on the reefs – when you use different gear types you get conflicts, it happens all the time. They want a solution that reduces gear conflicts but is not a complete prohibition. They also want the NJ funds for reef building restored – they would support a resolution to the problem that is similar to the one hammered out for the state water reef. Let's do it again and work together to find a solution to this problem.

Glenn Arthur, Chairman of the NJ Association of Dive Clubs, and noted that his group has been a long-time supporter of the reef program and they donated a reef ball in their name which is in the commercial portion of the state NJ reef site. They agree with the monitoring team's findings of complete SMZ status for all 13 NJ reef sites. We also thank the monitoring team for the recommendation to allow taking of fish (lobster) by hand as we take lobster by hand – and they do fight back. Also, with regard to funding as was mentioned earlier, he noted that a commercial industry member testified in Trenton at a state senate hearing that they do not write checks to the artificial reef program. He also contended that the original \$400,000 that was used to start the reef program came from a fine against the Oyster Creek Power Plant and the DEP had no say in how that money was spent, so neither side can claim credit for it. They agree with the monitoring team recommendation to make all 13 reef sites as SMZs which would restrict the use of gears to hook and line, spear, and taking by hand.

Kevin Fahy, commercial lobsterman, said he appreciates the artificial reef being built. He stated that any charter boat captain who can't anchor up around trap gear needs to take a lesson in anchoring a vessel. The gear is clearly marked. He doesn't understand why the rec guys can't fish around their gear. He doesn't fish the reefs at all (maybe 2% of his effort), but he feels the commercial catch on the reefs does not impact the stock. He has lost zero traps on the Seagirt and

Axel Carlsson reef. There is no ghost gear – none. He has fished for 11 years but the last ten years he has fished for fun and food -he does not sell his catch. He felt that adequate notice of this meeting was not given to the lobster fleet. This is god's ocean and no one owns it. There are lobster guys that fished the same areas long before the reefs were developed. Plus, there is a lot of structure out there – don't tell me it's flat ocean, there is plenty of structure in the area off New Jersey. This issue is one sided. He is a recreational lobsterman and he is no different that ne party charter sector. He won't lose any money but it is the principle of the issue – this is a pathetic, demoralizing one sided exercise.

Ken Warshaw, I represent the JCAA which is an association of 74 fishing clubs representing thousands of recreational anglers. I also represent the Manasquan Tuna fishing Club which has 235 members. The Manasquan Tuna fishing Club has been involved in 11 deployments on NJ artificial reefs and they are very interested in this situation. They fully support the designation of all 13 NJ reef sites as SMZs. We urge the Council to accept the monitoring team's recommendation to remove the pots from the reefs so funding can be restored. There are numerous pots and lines on the reefs that are a hindrance to recreational fishermen. The pots and lines prevent them from fishing the very reefs that they paid for. He knows from personal experience that the pots are poorly marked on the Shark river, Sea Girt and Axel Carlssson reefs. In many cases there are no high fliers – the pots are marked with boat fenders or plastic bottles which are hard to see and get pulled under when the tide runs hard. They support the move to remove the pots from the reefs and urge the Council to designate all 13 reef sites as SMZs.

John Toth, representing the NJ Outdoor Alliance and the Saltwater Anglers of Bergen County, fully supports the monitoring team's recommendation to designate all 13 NJ reef sites as SMZs.

Stephen Celeste, commercial fisherman, has fished the reefs for 25 years. When the reef program started in 1993 there was no discussion or plan to restrict the use of gear types on the reefs. Now you are talking about prohibiting pot gear on them. It so happens he was already fishing these areas before they were reefs sites. He noted that if the pot gear is removed from the reefs, fishermen are still going to get entangled in the reefs – it's the nature of the area -there is a lot of debris to hang rigs and anchors up on. The \$25,000 figure of lost income if pots are banned is totally wrong – it's way too low. Plus, just because you dump stuff on the bottom of the ocean doesn't mean you own the area – this SMZ proposal is just not right.

Peter Grimibilas representing the New Jersey Outdoor Alliance noted that the monitoring committee report is spot on. We need the reefs to be designated as SMZs. The gear conflict is bad and is getting worse each year. We see more and more traps on the reefs every year. In some cases, recreational fishermen move off the reefs because they are saturated with commercial gear making them impossible to fish. The rec fishermen complained to the USFWS and they cut off New Jersey's SFR funding for reef building. At that point reef building stopped. We need to designate these reefs as SMZs to restore the funding and resume reef building off the Jersey coast. We have over 3000 signatures to present to the Council supporting SMZ designation of the 13 NJ reef sites. The monitoring team report is spot on – they are in complete support of designating all 13 reef sites as SMZs with no gear allowed except hook and line, spear and taking by hand.

Paul Huertel representing the Berkley Striper Club, which has over 200 members, stated that they support the SMZ designation for the 13 reef sites. He personally lost a large fluke he had on during a tournament. He lost the fish when the it got wrapped up in commercial trap gear – away went

the prize money. Other members get their props fouled in the trap lines which is a major hazard to navigation – the reefs are so congested you can't fish them.

Jack Fullmer, representing the New Jersey Council of Diving Clubs stated that sport divers don't lose gear due to commercial gear - they lose bottom time. When we go diving we grapple into the wreck but sometimes when we grapple into the wreck there is so much gear we may not have hooked the wreck – causing us to go down, un hook and re-grapple. This costs us valuable bottom time which is limited at these depths. Also, the statement was made that there is no ghost gear out there – divers see ghost gear all the time. They support the monitoring teams recommendations to designate all 13 reef sites as SMZs.

Hearing adjourned at 9:15 p.m.

New Jersey SMZ Request Public Hearing Cape May, New Jersey November 17, 2106

The hearing was opened by hearing officer Mr. Thomas Baum of the New Jersey Department of Environmental Protection at 7:10 PM. Mr. Seagraves gave a presentation of the report of the Monitoring Team which was developed as a result of the New Jersey request for designation of its artificial reefs in the EEZ as SMZ's.

Harvey Yekinson favored the designation of all 13 New Jersey reef sites in the EZ as SMZ's - not one or two. He continually loses up to 30 rigs per day when fishing the reef sites - the conflict between hook and line and trap gear is real. This is not a conflict between recreational and commercial fishermen, it is a real gear conflict. The future of the reef program is dependent upon future funding which will be eliminated if the reefs are not designated as SMZs - the reefs will just continue to deteriorate unless they are maintained.

Jason Hansen asked what evidence is there that a gear conflict on the reefs truly exists? If hook and line fishermen are losing 10 to 15 rigs per trip, how do you know your gear is fouling on fixed trap gear and not the debris and rubble on the artificial reefs itself? His family business includes the operation of two restaurants and a seafood market. They use the reef sites to catch a variety of species including sea bass lobster conch etc. to supply these businesses with fresh fish. The Council is not taking into account the fact that many people come to the Jersey shore to eat seafood – his company provides access to seafood, not everyone has a boat and is able to fish the reefs. The data in the October document which shows the landings at less 1% of the total is seriously flawed and grossly underestimates the economic activity related to commercial fishing on the reef sites. The statement that there is no economic impact and that it can be made up elsewhere is false – the data used is flawed since conch and lobster which is what Mr. Seagraves said the October council meeting. The document only talks about sea bass – the recreational fishery had quota overages of 54-112% - the reefs concentrate the fish which contributes to the recreational overages making the problem worse.

Donna Hansen, F/V Nordic Sun, stated that the monitoring team's recommendation to designate the NJ reefs as SMZs is not based on sound science. Under the applicable laws section, the document fails to mention the National Fisheries Enhancement Act which requires all reefs to

benefit both commercial and recreational fisheries. The SMZ designation would be to the benefit of only the recreational fishermen. The SMZ report only looks at the money spent by recreational fishermen but does not take into account the public value. The Army donated the tanks which are a public resource but this is counted in as recreational but the American public paid for the tanks. NJ took credit for all of the public value because they want the recreational fishermen to look good. She was adamantly opposed to the designation of any of the NJ reefs as SMZs.

Noel Angelucci, Fortescue Anglers, supported the designation of all 13 reef sites as SMZs.

David Kielmeier, Carmen's Lobster Pool, stated that he fishes some of the reef areas for lobster. The data presented in the Monitoring Team report are way low on lobster – the report grossly underestimates the commercial value of lobster. They are just now keeping track of conch this year – so the conch value is under represented also. The monitoring team report does not capture the high dollar value species and there are a lot more people deriving commercial revenue from the reefs than the report indicates – the whole SMZ issue should be put on hold.

Thomas Vivian stated that he represents the taxpayer and consumer. There is no way for him to utilize the reef resources except by buying fish from a seafood market. If the Council designates the New Jersey reef sites as SMZs because of a conflict between recreational fishermen and commercial traps there will be a reduction in the supply of lobster and black sea bass in the commercial markets. This will result in an increase in the cost of fish to him - the consumer. The SMZ designation will not eliminate the gear conflict, how can you claim that? The document indicates that an SMZ designation would result in a loss of revenue annually equal to \$25,000, this number is incorrect. If the commercial trap fishermen are kicked off the reefs, their costs of producing seafood will increase and this increase will be passed on to him, the consumer. The reefs are supposed to be shared equally, so why aren't they?

Bill Figley, representing Reef Rescue presented the Council with a petition signed by x number of fishermen and divers favoring the designation of the 13 NJ reef sites as SMZs. The state of New Jersey began its reef program in 1984 but that program is not unique. All the states from New Jersey South and including the Gulf of Mexico have artificial reef programs. The reason for these programs is to benefit hook and line fishermen - which is not unique to New Jersey. Like public parks you need rules so that everyone is free to use this public resource. The refs were funded by federal aid and this is totally a clear conflict issue- certain types of fishing gear on the reefs make it a burden for intended users to utilize the reefs. All the states in the Gulf have designated their reefs as SMZs to address the problem with the proliferation of fixed commercial fishing gear on artificial reefs. When the reefs were improved there was an increase in trap gear and the same thing happened along the Atlantic coast. The South Atlantic got SMZ authority in the snapper grouper FMP. The Mid-Atlantic Council saw the potential need to address this problem so a provision was placed in the black sea bass summer flounder and scup FMP 15 years ago. We are currently faced with a major gear conflict between hook and line and pot trap gear on New Jersey reef sites. He recommended that the Council follow the monitoring teams recommendation to grant SMZ status for all 13 New Jersey reef sites which would restrict gear types to hook and line, spear, and taking by hand.

James Parker, representing himself, noted that when the artificial reef program in New Jersey was being developed in the 1980s the stated purpose was to benefit sport and commercial fishermen

alike. The current sentiment is to eliminate the use of commercial gear on artificial reefs and New Jersey, so obviously there is a latent sentiment which differs from the original intent of New Jersey in developing its reef program. Now the Council wants to restrict the use of the reefs to the benefit of hook and line fishermen only under an SMZ designation. The Council is supposed to represent all interest groups, but now we are moving the goal posts. The SMZ idea can be put forward with the stroke of a pen - and that SMZ designation runs counter to the original intent of the reef permit holder which was to benefit both recreational and commercial fishermen alike.

Marty Buzas, F/V Frank, noted that the SMZ situation is analogous to a public bench donated by the Kiwanis club at the publicly owned Cape May Ferry terminal. The Kiwanis club donated the bench but they don't own it because it is located on publicly owned property. He has been fishing for over 20 years on the Capt. Frank. Only six fishermen qualified for black sea bass hook and line permits - two were scallopers, two were party boats and two are sitting in this audience. It was stated on the public record that there could be a viable commercial hook and line fishery with this many participants. Any intelligent man would say this is not true. Mr. Chew cited the National Fisheries Enhancement Act which outlines the need to manage benefits from artificial reefs. With only two fishermen trying to make a living using hook and line, there are limited or no benefits to the commercial sector. The SMZ proposal would allow only hook and line gear on the 13 reef sites - how will a commercial guy catch and make a living on lobster and conch using hook and line gear only? He wants to make NMFS do the right thing. Managing the reef sites is not about qualifying for grant money - it's about fair utilization from both sectors. The solution is simple cut the reefs in half as Mr. Chew has proposed.

Walt Chew stated that he was retired. Let me start by telling you about a property I have in Stumpy Point, North Carolina. I'm going to build something down there and the County says it's okay and they'll issue a permit to do it. So I got a general contractor and he's lined up a few subcontractors to do the work. And I got some financing lined up. But let me ask you this - which of those - the general contractor the subcontractors or the financer gets to say what the purpose of that project is? That's right - none of them! I own the property and I am the only one who gets to say what the purpose of that project is.

Now you know about the projects right here off our coast. The federal government owns property out there and Congress decided that it wants to have some projects - artificial reefs built on. So Congress authorized the Army Corps to give permits to general contractors to oversee the work. The New Jersey DEP got a permit to be the general contractor for the 13 sites off our coast. Then the DEP found volunteers and subcontractors to actually do the work. The DEP liked the idea of building reefs so much that it kicked in some state financing and lined up grant money to build two reefs on state property and 13 reefs on federal property. We know who sets the intent of the state reefs, it's the state because it owns the property but tell me who gets to say what the purpose of those 13 reefs sites on federal property is? Nobody but Congress can change it and no amount of guys saying our money paid for it or groups saying our grant money was meant to help only recreational fishermen can change what Congress said.so here's my first suggestion to NMFS - sit your butt down and read what Congress said.

Now because the MAFMC hasn't read the law, it's about to create a legal problem for NMFS here. The MAFMC rep from Virginia - Dr. Mann, asked this question at the October meeting. He said are we going to establish a policy of you pay for you get to keep it or we going to make it that if you pay for it it's better for everybody and we get to share. That was an excellent question and the

answer is found in federal law 33 USC 2101 and 2102. Nobody gets to keep it and if the Council would just read the law that you Mr. Seagraves left out of your presentation and you the monitoring committee hid from them - they would see that Congress says that recreational and commercial fishermen are to share it.

I'm going to get a little deep into the legal stuff here so follow closely. This SMZ that's being proposed is not, I repeat not, part of a fisheries management plan. Why not? Because it doesn't have to do with any fish – that means it doesn't fall under the discretionary provisions of the Magnuson Act found in federal law 16 USC 1853Bb2a..... NMFS is proposing this action as an SMZ under the authority of 50 CFR 648.146. But that CFR doesn't let NMFS prohibit any gear it wants to do.... the CFR says that NMFS can only prohibit gear that is, and I quote, "incompatible with the intent of the reefs". And the problem that NMFS is creating for itself is that it is using a reef intent statement that doesn't apply to these reefs. You see when the DEP assistant commissioner wrote his letter to the mid-Atlantic Council asking for the SMZ he said that the intended use of the reefs was angling but he was wrong, wrong, wrong - to put it mildly its BS. Why do I say that? It's because he got that angling idea from something that the DEP wrote about state water reefs, not from what Congress wrote about federal reefs. Nowhere did Congress say that the intended use of federal reefs was angling. And unless NMFS can show that everything except hook and line is incompatible with the intent that Congress wrote for federal reefs. Doing it is not legal under the law NMFS says it is using. Have their legal advisor read the law to them slowly and explain what it means. Sounds like a repeat doesn't it? All I can say is since the Council started out by not reading the law and knowing what it is supposed to do, it ended up here proposing to do something illegal.

Now, the let me explain a second legal problem that NMFS is creating for itself here. Even though New Jersey is a permit holder and had the authority to request that NMFS make SMZ's - NMFS is the manager of these reefs and as such NMFS must be aware that the standards listed in federal law 33 USC 2102 apply to any action it takes. Those standards say that reefs shall be, not should be, but shall be "managed in a manner that will facilitate access and utilization by recreational and commercial fishermen". When a law says shall it means that NMFS has no other option than to do what it says. When NMFS put the SMZ's like the one in place for the reefs off Delaware's coast, it left only one fisherman in the whole state of Delaware who could possibly utilize the reefs. I submitted a public comment saying that it was a violation to put an SMZ in place that didn't let commercial fishermen have utilization of the reefs. NMFS's answer was this "NMFS doesn't have to have it benefit recreational and commercial fishermen simultaneously". While as president Reagan would say, I's true - benefit to both sectors doesn't have to be simultaneous. But that SMZ made it so that the reefs never benefited commercial guys. The \$64,000 question is when is NMFS going to see the word "and" in that law and do the other half of what the law says it's got to do. Let me point out that by making it so that the commercial guys never get utilization, NMFS violated federal law. And it's about the do it again here. So ask the Council this - is NMFS above the law that it can do whatever it wants to do?

In New Jersey everything is a pay to play system, what happened with New Jersey's two state artifical reefs was no different. But I got sad news for all you guys that say "it's our money that built the reefs". These reefs aren't in New Jersey and pay to play doesn't work on federal property.

So let's step back and summarize this legal stuff by giving you an overview of how law says artificial reefs are supposed to work. Any reef program in federal waters should be designated to

achieve the things that Congress listed as its intent for federal reefs in federal law 33 USC 2101a5. It says nothing about donors having a say in what happens. There are legal options for program matters managers to request designation of sections or entire reefs preferred for certain fishing sectors; or for the exclusion of certain gear types. However, but no reef program can violate the standard listed in 33 USC 2102 (2) by making the end result one-sided.

As Mr. Nowalski pointed out, trying to divide up the reefs by determining which section of all 13 reefs sites should be designated for which sector or which gear type can be an almost impossible task. And because of the locations of the reefs, equitably allocating entire reefs and future development of those sites to different sectors is not only impossible but also runs contrary to the reason that the reefs were located near each inlet to start with.

So here's the problem in a nutshell - because federal reefs are not a pay to play program, where the money came from to build the reef should have absolutely nothing to do with how they are managed. Congress says both recreational and commercial fishermen must have utilization of the reefs. The Congress also says minimize conflicts among uses. The problem is that two sectors utilize gear types that are each compatible with the intent of the reefs but are not compatible with each other.

So how do we minimize the conflict while still allowing each sector utilization? The answer is the answer to Dr. Mann's original question about policy and it's something that we all learned in kindergarten - sharing. At the last meeting of the mid-Atlantic Council, Mr. Bullard, the NMFS Regional Director asked that you come out here in public hearings and get from the public (that's me) the suggestions of ways to share the reefs. Here's a written copy of it (see Attachment 1). It's simple and it's fair to everybody and it's legal because it does what the law says must be done by minimizing the conflict both recreational and commercial fishermen have with each other on the reefs while helping both sectors to utilize federal reefs. I'll summarize it this way - cut the reefs in half, make one half recreational the other commercial and swap sides each year. It's an equitable distribution of reef resources to both sectors and it will solve the conflict problem forever no matter what form of fishing either commercial or recreational guys come up with next.

That's it, hope you took good notes and got these points that I just made:

- 1. Reef intent is not found in statements made by DEP or US FWS SFRP it's listed in federal law, read it.
- 2. This proposed SMZ is not legal because under the CFR being used, prohibiting gear for any reason other than incompatibility with reef intent is not legal
- 3. NMFS is required to manage these reefs in a manner that will let both recreational commercial fishermen have utilization. This proposal isn't doing that.
- 4. Sharing is the answer to solve the problem cut the reefs in half.

Rachael Hansen stated that the commercial revenue loss on New Jersey reef sites likely to result from an SMZ designation as presented in the Monitoring Team report is a totally inaccurate number. She requests that the Council ask that the state provide accurate and real numbers to describe the negative economic impact on the commercial sector which would result from an SMZ designation. Her family runs a seafood market and we sell what we catch. Her dad and brother fish every day and provide local fresh seafood for the many tourists which come to the beach to eat seafood. In many cases patrons call ahead to place their order and we target those species to meet their needs. If the reefs are designated as SMZs, her business will suffer. We provide consumers

with access to fresh seafood because not everyone has a boat and access to the reef sites. How can we increase access to US fishery products with such a one-sided policy? There has been no attempt to compromise or consider the real impact on tourism and local fishing communities.

Greg DiDomenico, Garden State Seafood Association, is 100% in support of the idea of crafting a compromise that will allow access to the reef sites from both sectors. The Mid-Atlantic Council has tackled much larger and controversial issues than this. He asks that the Council find a way to craft a solution to this problem that is fair to both sides. All he asks is for equal treatment in this situation. The Council should consider Mr. Chew's proposal at the upcoming December Council meeting. The Council should commit to meeting with industry advisors, including both parties, so we can work this out. The GSSA is committed to working with all parties concerned, including the DEP, to work out a solution to this problem.

The public hearing adjourned at 8:55 PM.

Cape May Hearing Attachment 1

30 Oct 2016

Dr. Christopher M. Moore Executive Director, MAFMC

Dr Moore: RE: NJ Artificial reef SMZ request

There are two laws concerning artificial reefs in the EEZ under which NMFS can and should act.

The first is 50 CFR 648.148. It allows NMFS to restrain or prohibit "gear" that is "incompatible with the intent of the reef" (see Attachment 1). However, in order to prohibit any gear type when acting under this CFR, the Council must be careful not to use statements of intent that come from source other than the owner of the reefs¹. Since the U.S. Government owns the reefs in federal waters, NMFS must show that the gear type being prohibited is incompatible with the intent that Congress established for artificial reefs in Federal waters as listed in 33 USC 2101 (a5).

The second law is 33 USC 2102. It <u>mandates</u> that management measures on artificial reefs in the EEZ are to be managed in a manner that is consistent with standards included in the law (see Attachment 1). These standards reference fishing <u>sectors</u> (commercial and recreational), and "<u>uses</u>" rather than gear.

Since, in New Jersey's request, the reason for the SMZ request is that pots are causing recreational users to lose <u>access</u> to reef areas (rather than pots being incompatible with the intent¹ of Federal reefs), <u>it is</u> <u>justifiable</u>, <u>under the mandate of 33 USC 2102</u>, to create an SMZ plan that ameliorates present and <u>future conflict by addressing sector usage</u>.

Near the close of the Council's discussion on SMZs, Mr. Bullard asked that the public make suggestions for a "sharing" plan that may be an alternative to the "possibly imperfect" plan suggested by the Garden State Seafood Association (GSSA), Therefore I propose the attached plan (see attached *Plan A*) that:

• Meets the sector mandates of 33 USC 2102 and the gear requirement of 50 CFR 648.148;

¹ Sport Fish Restoration Program (SFRP) <u>intent</u> applies only as criteria for granting SFRP funds; and New Jersey reef program intent applies only to State waters reefs.

- Allows the reef near each inlet to be accessed and utilized by both sectors simultaneously as
 opposed to the GSSA plan that makes the fishermen from one of the sectors travel a great
 distance to get on a reef of proper designation;
- Allows each sector to have an equitable distribution of reef resources in the EEZ as opposed to the possibility of an inequitable distribution or inequitable future reef development.

(Both of the latter are shortcomings of the GSSA plan.)

Please have the Council consider the attached <u>Plans</u> as fair and balanced solutions (SMZ) for ameliorating conflicts occurring on all Federal waters reefs.

The Old Fisherman
Walter Chew (wdchew@comcast.net)

Definitions: (used in both plans)

Unattended gear: Equipment (including buoys) that is more than 300 feet from, <u>or</u> is detached from the vessel.

Plan A

- I. Reef permit holder responsibilities:
 - A. Establish a permanent line approximately bisecting the reef into two sections.
 - B. Between Apr 1 and Dec 31 each year, designate one section of the reef as *recreational zone* and the other as *commercial zone*.
 - 1. Section designations shall alternate on Apr 1 each year.
- II. Gear requirements:
 - A. Because <u>unattended</u> gear causes conflict among recreational users, no <u>unattended</u> gear may be deployed or used in the <u>recreational zone</u> [required by 33 USC 2102(3)]
 - B. Because dredges and nets cause permanent damage to reef structure, use of all forms of dredges and nets (except hand held landing nets) are prohibited in both zones.

 (justified under 50 CFR 648.148)
 - C. In order that each fishing sector may have access and utilization of reef areas [required by 33 USC 2102(2)] and experience minimal conflict while doing so: [required by 33 USC 2102(3)]
 - i. Recreational fishing is prohibited in the *commercial zone*.
 - ii. Commercial fishing is prohibited in the recreational zone.

Plan B (similar to New Jersey's state waters plan)

- I. Reef permit holder responsibilities:
 - A. Establish a permanent line approximately bisecting the reef into two sections.

- B. Between Apr 1 and Dec 31 each year, designate one section of the reef as <u>all gear</u> zone and the other as <u>angling zone</u>.
 - i. Section designations shall alternate on Apr 1 each year.
- II. Gear requirements:
 - A. Because <u>unattended</u> gear restricts access by anglers, no <u>unattended</u> gear may be deployed or used in the <u>angling zone</u>. [as required by 33 USC 2102(3)]
 - B. Because they cause permanent damage to reef structure, use of all forms of dredges and nets (except hand held landing nets) are prohibited in both zones.

 (justified under 50 CFR 648.148)

Notes:

- -- In Plan A, fishermen of each sector are free of conflict with fishermen of the other sector no matter what gear they are using. The annual alternating of section designations creates an equitable initial distribution of reef resources to both fishing sectors and maintains an equitable distribution independent of future reef development.
- -- In Plan B, recreational anglers experience conflict in the <u>all qear zone</u>, but are free from conflict with <u>unattended</u> gear in the <u>angling zone</u>.
- -- Both plans have the characteristic of: When a fishing season is closed, that half of the reef becomes a fish sanctuary.

ATTACHMENT I (Regulations and Laws)

50 CFR 648.148 - Special management zones.

"....... The MAFMC may prohibit or restrain the use of specific types of fishing <u>gear</u> that are not compatible with the <u>intent of the artificial reef</u> or fish attraction device or other habitat modification within the SMZ."

(intent of a Federal Artificial reef is listed in 33 USC 2101 a5)

33 USC 2101 - Congressional statement of findings and purpose

- (a) The Congress finds that—
 - (5) properly designed, constructed, and located artificial reefs in waters covered under this chapter can

enhance the habitat and diversity of fishery resources;

enhance United States recreational and commercial fishing opportunities;

increase the production of fishery products in the United States;

increase the energy efficiency of <u>recreational and commercial fisheries</u>; and contribute to the United States and coastal economies.

(b) The purpose of this chapter is to promote and facilitate responsible and effective efforts to establish artificial reefs in waters covered under this chapter.

33 USC 2102 - Establishment of standards

- "....... artificial reefs in waters covered under this chapter shall be sited and constructed, and subsequently monitored and managed in a manner which will—
 - (2) facilitate access and utilization by United States recreational and commercial fishermen;
 - (3) minimize conflicts among **competing uses** of waters covered under this chapter and the resources in such waters;

(4)....."

A Report to the Mid-Atlantic Fishery Management Council on the New Jersey Department of Environmental Protection's request for Special Management Zone (SMZ) Designation for 13 Artificial Reef Sites in the EEZ

FIRST DRAFT (modified 10/5/2016)

October 2016

SMZ Monitoring Team

Travis Ford Karen Greene Richard Seagraves Scott Steinback

Executive Summary

The New Jersey Department of Environmental Protection (DEP) petitioned the Mid-Atlantic Council to designate 13 artificial reef sites as Special Management Zones (SMZs) in the EEZ under provisions of Amendment 9 to the Summer Flounder, Scup and Black Sea Bass FMP. The justification for this request was based on the need to ameliorate gear conflicts between hook and line fishermen and fixed pot/trap gear at those sites. The DEP had funds for its artificial reef program in the EEZ under the US Fish and Wildlife Service Sport Fish Restoration (SFR) Program terminated (which is effectively the DEPs sole source of funding for its reef program) as a result of the gear conflict issue in 2011, though this funding was at least partially restored in 2016.

A Monitoring Team was formed to evaluate the NJDEP request relative to the following factors: (1) fairness and equity; (2) promotion of conservation; (3) avoidance of excessive shares; (4) consistency with the objectives of Amendment 9 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan, the Magnuson-Stevens Act, and other applicable law; (5) the natural bottom in and surrounding potential SMZs; and (6) impacts on historical uses. This report contains an analysis of these factors and recommendations relative to the DEP request.

Findings:

- 1. The designation of the NJDEP 13 reef sites appears to be compatible with the Magnuson-Stevens Act and other applicable federal law.
- 2. Comparing the mapped commercial pot/trap effort by reef site to estimates of recreational fishing effort at each reef site points to potential gear conflicts at the Cape May and Sea Girt reef sites, particularly between commercial pot/trap vessels and party/charter vessels. Given that approximately half of the party/charter reef effort in 2015 was estimated to occur at the Cape May and Sea Girt reef sites, gear interactions may be occurring at these reef sites. The probability of gear conflicts at the other 11 reef sites is low.
- 3. Ex-vessel revenue from pot/trap landings at all 13 reef sites combined approached only \$25 thousand in 2015. This represents less than one percent of total ex-vessel revenue (i.e., reef revenue and non-reef revenue combined) obtained by vessels with pot/trap reef landings in 2015. Over the past 5 years, ex-vessel reef revenue from pot/trap landings has remained below 1% of total ex-vessel revenue for vessels with pot/trap reef landings. When all pot/trap activity occurring in New Jersey is considered (i.e., ex-vessel revenue from vessels with and without reef landings), reef site ex-vessel revenue represented between 0.19% and 0.31% of total ex-vessel revenue from New Jersey pot/trap landings.
- 4. These findings indicate that commercial fishing vessels deploying pot/trap gear off the coast of New Jersey would likely face minimal to no losses in ex-vessel revenue if the artificial reefs are designated as SMZs.

Recommendations

- 1. Based on evaluation of all relevant factors and issues as outlined in Amendment 9 to the Summer Flounder, Scup and Black Sea Bass FMP, the SMZ Monitoring Team recommends that the Council designate all 13 New Jersey's artificial reefs located in the EEZ as SMZs. The SMZ designation should stipulate that no fishing vessel or person on a fishing vessel may fish in the 13 New Jersey Special Management Zones with any gear except hook and line and spear fishing (including the taking of fish by hand).
- 2. The Council would reserve the right to change or revise these SMZs, including any gear restrictions imposed as a result of such designations, if future analyses cause the Council to alter its policy with respect to SMZs during a broader consideration of this issue.
- 3. The Council should review the 2007 National Artificial Reef Plan and modify (if necessary) the artificial reef policy it adopted in 1995 and consider incorporating its artificial reef policy into ongoing efforts to establish habitat policy within the context of an Ecosystem Approach to Fisheries Management.

1.0 Introduction

The Mid-Atlantic Fishery Management Council received a letter dated 6 November 2015 from the State of New Jersey's Department of Environmental Protection (DEP) requesting Special Management Zone (SMZ) designation for 13 permitted artificial reefs located in the Exclusive Economic Zone (EEZ). Amendment 9 to the Summer Flounder, Scup and Black Sea Bass FMP (approved by NOAA on 17 October 1996; see 61 FR 58467, Nov. 15, 1996) incorporated a provision into the FMP (Section 9.1.2.7) that allows for the designation of artificial reefs in the EEZ as SMZs, if so petitioned by the permit holder.

The current regulatory language (as of July 19, 2012) pertaining to the SMZ provision of the FMP can be found at 50 CFR Part 648: Subpart I - Management of the Black Sea Bass Fishery as follows:

§ 648.148 Special management zones.

The recipient of a U.S. Army Corps of Engineers permit for an artificial reef, fish attraction device, or other modification of habitat for purposes of fishing may request that an area surrounding and including the site be designated by the MAFMC as a special management zone (SMZ). The MAFMC may prohibit or restrain the use of specific types of fishing gear that are not compatible with the intent of the artificial reef or fish attraction device or other habitat modification within the SMZ. The establishment of an SMZ will be effected by a regulatory amendment, pursuant to the following procedure:

- (a) A SMZ monitoring team comprised of members of staff from the MAFMC, NMFS Greater Atlantic Region, and NMFS Northeast Fisheries Science Center will evaluate the request in the form of a written report, considering the following criteria:
- (1) Fairness and equity;
- (2) Promotion of conservation;
- (3) Avoidance of excessive shares:
- (4) Consistency with the objectives of Amendment 9 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan, the Magnuson-Stevens Act, and other applicable law;
- (5) The natural bottom in and surrounding potential SMZs; and
- (6) Impacts on historical uses.
- (b) The MAFMC Chairman may schedule meetings of MAFMC's industry advisors and/or the SSC to review the report and associated documents and to advise the MAFMC. The MAFMC Chairman may also schedule public hearings.
- (c) The MAFMC, following review of the SMZ monitoring team's report, supporting data, public comments, and other relevant information, may recommend to the Regional Administrator that a SMZ be approved. Such a recommendation will be accompanied by all relevant background information.

- (d) The Regional Administrator will review the MAFMC's recommendation. If the Regional Administrator concurs in the recommendation, he or she will publish a proposed rule in the Federal Register in accordance with the recommendations. If the Regional Administrator rejects the MAFMC's recommendation, he or she shall advise the MAFMC in writing of the basis for the rejection.
- (e) The proposed rule to establish a SMZ shall afford a reasonable period for public comment. Following a review of public comments and any information or data not previously available, the Regional Administrator will publish a final rule if he or she determines that the establishment of the SMZ is supported by the substantial weight of evidence in the record and consistent with the Magnuson-Stevens Act and other applicable law.

1.1. Formation of SMZ Monitoring Team

Based on requirements described above, an SMZ Monitoring Team (MT) was formed consisting of members of MAFMC Staff, the Northeast Fisheries Science Center (NEFSC), and the Northeast Regional Office (NERO) to evaluate the SMZ request submitted to the MAFMC by NJ DEP (see appendix 1). The role of the Monitoring Team is to evaluate New Jersey's SMZ request for 13 reef sites in the EEZ based on the criteria developed in Amendment 9 in the form of a written report.

1.2 Basis for New Jersey's SMZ Request

In a letter to Dr. Chris Moore dated November 6, 2015 (appendix 1), the NJ DEP formally requested that the Council designate its 13 artificial sites currently permitted in federal waters (as defined by the Army Corps of Engineer [COE] permit number CENAP-OP-R-200401135-1) under the SMZ provisions of Amendment 9 to the Summer flounder, Scup and Black Sea bass FMP described above. In the SMZ request letter it was noted that "Since the inception of New Jersey's Reef Program in 1984, and increasingly as reef development intensified and habitat increased, we have received complaints from individuals, head boat and charter boat captains, grassroots organizations and state legislators on behalf of their constituents that there is too much commercial gear on our reefs. The deployment of this gear severely limits recreational access to these reefs and makes unviable the intended hook-and-line use of these sites."

In its SMZ request letter, the NJDEP also noted that "New Jersey's Reef Program was funded primarily through the U. S. Fish and Wildlife Service's (USFWS) Sport Fish Restoration Program (SFR), which is a "user pays, user benefits" program. Following several requests by the USFWS to resolve these user conflict and access issues, on April 12, 2011 SFR funding for the Reef Program and all reef construction and monitoring activities was discontinued for failure to address the issue. USFWS officials stated that funding to the Reef Program would be restored once these issues are resolved. The USFWS stated position is that that when gear conflicts occur, pot fishing on reef sites is not consistent with the objectives of their Sportfish Restoration Program. State reef programs must be able to limit gear conflicts by regulations in state waters or by way of SMZ's for sites in the EEZ in order to comply with the goals of the Sportfish Restoration Program. This theme was also articulated during a presentation to the Council by the USFWS entitled *Dingell – Johnson Sport Fish Restoration Program(SFRP)* -

Recreational and Commercial Fishing Conflicts on Artificial Reefs - Implications for Federal Funding. That presentation described the artificial reef grant objectives of USFWS to be "to increase diversity, abundance and availability of reef-dependent species sought by recreational fishermen through creation of artificial reefs and to provide increased fishing opportunities for recreational anglers". The major issues from the USFWS perspective include 1) proliferation of commercial fishing traps/pots on artificial reefs constructed with Dingell-Johnson Sport Fish Restoration (SFR) funds, 2) commercial/recreational gear conflict interferes with accomplishment of artificial reef grant objectives and 3) absence of mechanisms to manage commercial fishing on reefs located in State -controlled waters and the Exclusive Economic Zone. The USFWS noted the following implications for SFR funding in cases where commercial/recreational gear conflicts are not remedied: 1) replacement of expended funds 2) suspension or termination of project for noncompliance and 3) declare the State ineligible to participate in SFR program.

Thus, the following evaluation by the SMZ Monitoring Team of New Jersey's request for SMZ status for its 13 reef sites in the EEZ focuses on the proliferation of gear conflicts between recreational fishermen and fixed pot/trap gear described by NJDEP in its 6 November 2015 letter and the contention that gear conflicts are contravening the goals of its artificial reef program. As noted above, this contention is consistent with policy guidance relative to acceptable uses of artificial reefs funded with SFR funds as articulated by the USFWS.

2.0 History of Development of New Jersey Reef Sites

Since 1984, the NJ Bureau of Marine Fisheries has been involved in an intensive program of artificial reef construction and biological monitoring along the New Jersey coastline. The stated purpose of the NJ Reef Program is to create a network of artificial reefs in the ocean waters along the New Jersey coast to provide a hard substrate for fish, shellfish and crustaceans, fishing grounds for anglers, and underwater structures for scuba divers (http://www.state.nj.us/dep/fgw/artreef).

Artificial reefs are constructed by intentionally placing dense materials, such as old ships and barges, concrete and steel demolition debris and dredge rock on the sea floor within designated reef sites. At present, the division holds permits for 15 artificial reef sites encompassing a total of 25 square miles of sea floor. The reefs are strategically located along the coast so that one site is within easy boat range of 12 New Jersey ocean inlets. The subjects of this SMZ request are the 13 reef sites located in the EEZ.

Within each reef site, which range in size from one-half to over four square miles, numerous "patch reefs" have been constructed. A patch reef is a one-half to 5-acre area where one barge load of material has been deployed. In total, over 1200 patch reefs have been constructed on the state's 15 reef sites since the program began. Reefs are now being used extensively by anglers and divers who catch sea bass, blackfish, porgy and lobster.

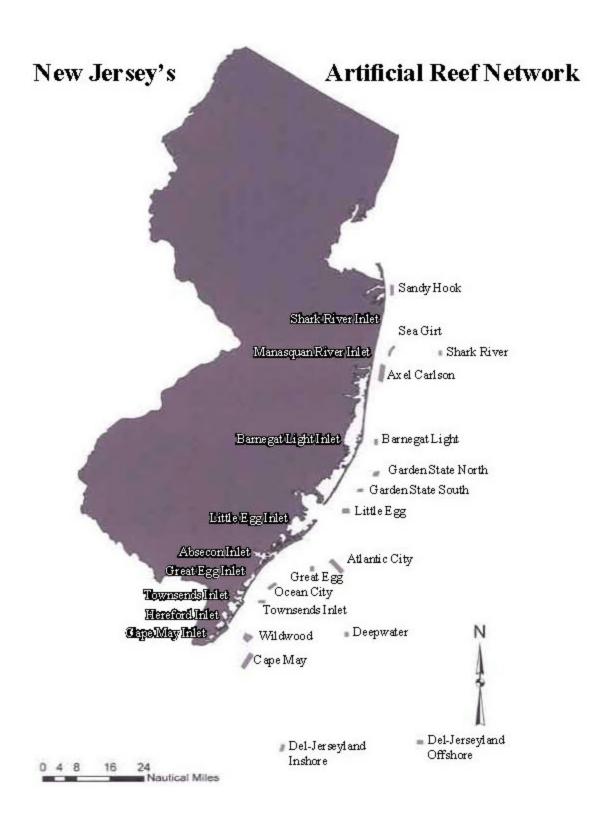


Figure 1. Location of artificial reefs in the Atlantic Ocean permitted to the State of New Jersey (includes reef sites located in NJ state waters and the EEZ). Note: the two Del-Jerseyland sites are not included in this SMZ request.

2.1 New Jersey Reef Sites Description

2.1.1 Materials Allowed on the Reefs:

Under the US Army Corps of Engineers permit for the New Jersey reef program, artificial reef materials permitted for use on the sites are in two separate categories. The first are specifically designed reef materials. These design materials are constructed to maximize surface area for attracting organisms to provide specific habitat requirements for targeted reef fish and other marine species. The second category of reef materials allowed is identified as materials of opportunity. Materials of opportunity that could be used for construction of artificial reef structures include, but are not limited to, concrete, rock, surplus ships, barges, tanks, armored personnel carriers, and obsolete subway cars. In accordance with the National Artificial Reef Plan, and the US Army Corps of Engineers, all materials of opportunity must be properly cleaned, dismantle where necessary, and inspected prior to deployment to assure that they are clean and free of contaminants.

2.1.2 Description of Reef Sites for which the NJ DEP seeks SMZ designation

- 1. Sea Girt Reef site (area=1.3 nm²) is located approximately 3.4 miles east of Sea Girt, in Monmouth County New Jersey. The Sea Girt site requires a minimum vertical clearance of fifty (50) feet below mean low water.
- 2. Shark River Reef site (area=0.72 nm²) is located approximately 15.6 Nautical miles and at a direction of 100 degrees from the Manasquan Inlet, in Monmouth/Ocean County, New Jersey. The Shark River site requires a minimum vertical clearance of fifty (50) feet below mean low water.
- 3. Barnegat Light Reef site (area=0.85 nm²) is located approximately 3.1 Nautical miles east of Barnegat Light in Ocean County, New Jersey. This site is approximately 3.1 miles from Barnegat Inlet at a direction of 103 degrees. The Barnegat Light site requires a minimum vertical clearance of fifty (50) feet below mean low water.
- 4. Garden State North Reef site (area=1.1 nm²) is located approximately 6.5 nautical miles east of Harvey Cedars in Ocean County, New Jersey. This site is approximately 7.7 nautical miles at a direction of 172 degrees from Barnegat Inlet. The Garden State North site requires a minimum vertical clearance of fifty-two (52) feet below mean low water.
- 5. Garden State South Reef site (area=0.6 nm²) is located approximately 5.1 nautical miles east of Spray Beach in Ocean County, New Jersey. This site is located approximately 9.1 nautical miles at a direction of 64 degrees from Little Egg Inlet. The Garden State South site requires a minimum veltical clearance of fifty-two (52) feet below mean low water.

- 6. Little Egg Reef site (area=1.5 nm²) is located approximately 3.8 nautical miles east of Holgate in Ocean County, New Jersey. This site is located approximately 5.05 nautical miles at a direction of 93 degrees from Little Egg Inlet. The Little Egg site requires a minimum vertical clearance of fifty (50) feet below mean low water.
- 7. Atlantic City Reef site (area=4.0 nm²) is located approximately 12. 2 nautical miles east of Atlantic City in Atlantic County, New Jersey. This site is located approximately 8.5 nautical miles at a direction of 142 degrees from Absecon Inlet. The Atlantic City site requires a minimum ve lical clearance of fifty (50) feet below mean low water.
- 8. Great Egg Reef site (area=1.0 nm²) is located approximately 7 nautical miles southeast of Atlantic City in Atlantic County, New Jersey. This site is located approximately 9.2 miles at a direction of 110 degrees from Great Egg Harbor Inlet. The Great Egg site requires a minimum .ve lical clearance of fifty (50) feet below mean low water.
- 9. Ocean City Reef site (area=0.8 nm²) is located approximately 4.5 nautical miles southeast of Ocean City in Cape May County, New Jersey. This is located 4.3 nautical miles at a direction of 131 degrees from Carson's Inlet. The Ocean City site requires a minimum vertical clearance of fifty (50) feet below mean low water.
- 10. Townsends Inlet Reef site (area=0.52 nm²) is located approximately 3.8 nautical miles southeast of Townsends Inlet in Cape May County, New Jersey. The Townsends Inlet Reef site requires a minimum veltical clearance of thirty (30) feet below mean low water.
- 11. Wildwood Reef site (area=2.1 mi²) is located approximately 4.4 nautical miles southeast of Wildwood in Cape May County, New Jersey. This site is located 4.5 nautical miles at a direction of 135 degrees from Hereford Inlet. The Wildwood site requires a minimum ve lical clearance of thirty (30) feet below mean low water
- 12. Cape May Reef site (area=4.5 nm²) is located approximately 8.5 nautical miles southeast of Wildwood in Cape May County, New Jersey. It is located 9.1 nautical miles at a direction of 128 degrees from Cape May Inlet. The Cape May site requires a minimum veltical clearance of thirty (30) feet below mean low water.

13. Deepwater Reef site (area=0.72 nm²) is located approximately 25.1 nautical miles southeast of Avalon in Cape May County, New Jersey. This site is located 31.5 nautical miles at a direction of 99 degrees from Cape May Inlet. The Deepwater site requires a minimum vertical clearance of fifty (50) feet below mean low water.

3.0 SMZ Monitoring Team Evaluation Based of the Criteria Established in Amendment 9

3.1 Evaluation relative of SMZ request relative to National Standard 4

There are six criteria for SMZ designation in Amendment 9 as described above in section 1.0. The first three criteria for SMZ evaluation: (1) fairness and equity; 2) promotion of conservation; and (3) avoidance of excessive shares are related to the National Standard 4 of the MSA which sets forth criteria Councils must follow when allocation of fishery resources or restrictions on access to those resources are contemplated.

Discrimination among residents of different states

First and foremost, National Standard 4 requires that management measures or programs promulgated under MSA shall not discriminate between residents of different states. An FMP may not differentiate among U.S. citizens, nationals, resident aliens, or corporations on the basis of their state of residence. An FMP may not incorporate or rely on a state statute or regulation that discriminates against residents of another state. Conservation and management measures that have different effects on persons in various geographic locations are permissible if they satisfy the other guidelines under Standard 4.

Examples of these precepts are:

- (1) An FMP that restricted fishing in the EEZ to those holding a permit from state X would violate Standard 4 if state X issued permits only to its own citizens.
- (2) An FMP that closed a spawning ground might disadvantage fishermen living in the state closest to it, because they would have to travel farther to an open area, but the closure could be justified under Standard 4 as a conservation measure with no discriminatory intent.

In the case of SMZ designation for New Jersey reefs in the EEZ, the Monitoring Committee sees no evidence of discrimination of residents of any particular state regardless of the Council's decision relative to SMZ status. Rather, the decision to designate an artificial reef as an SMZ represents an allocation of access to areas of the ocean within the geographic boundaries of the reef site in question (and any additional areas surrounding the SMZ deemed necessary to address practical law enforcement concerns is so included in accompanying regulations for the proposed action) to those using the gear type allowed in the SMZs. Access to the SMZs is not restricted to fishermen from any particular state. All fishermen using the gear type allowed in the SMZs can access this area to fish regardless of the state from which they departed. While there may be a disadvantage to those fishermen from states which are not adjacent to the SMZs, this is not considered to be discriminatory within the context of National Standard 4 as can be seen in Example 2 above.

Allocation of fishing privileges

An FMP may contain management measures that allocate fishing privileges if such measures are necessary or helpful in furthering legitimate objectives or in achieving the OY, and if the measures conform with paragraphs (3)(i) through (3)(iii) described below.

- (1) Definition. An ``allocation" or ``assignment" of fishing privileges is a direct and deliberate distribution of the opportunity to participate in a fishery among identifiable, discrete user groups or individuals. Any management measure (or lack of management) has incidental allocative effects, but only those measures that result in direct distributions of fishing privileges will be judged against the allocation requirements of Standard 4. Adoption of an FMP that merely perpetuates existing fishing practices may result in an allocation, if those practices directly distribute the opportunity to participate in the fishery. Allocations of fishing privileges include, for example, per-vessel catch limits, quotas by vessel class and gear type, different quotas or fishing seasons for recreational and commercial fishermen, assignment of ocean areas to different gear users, and limitation of permits to a certain number of vessels or fishermen. Given the very limited amount of ocean area occupied by the SMZs of the available fishing area on the continental shelf off New Jersey, this allocation might well be considered de minimis in nature.
- (2) Analysis of allocations. Each FMP should contain a description and analysis of the allocations existing in the fishery and of those made in the FMP. The effects of eliminating an existing allocation system should be examined. Allocation schemes considered, but rejected by the Council, should be included in the discussion. The analysis should relate the recommended allocations to the FMP's objectives and OY specification, and discuss the factors listed below in paragraph (3) of this section.
- (3) Factors in making allocations. An allocation of fishing privileges must be fair and equitable, must be reasonably calculated to promote conservation, and must avoid excessive shares. These tests are explained in paragraphs (c)(3)(i) through (c)(3)(ii) of this section:

(i) Fairness and equity.

- (A) An allocation of fishing privileges should be rationally connected to the achievement of OY or with the furtherance of a legitimate FMP objective. Inherent in an allocation is the advantaging of one group to the detriment of another. The motive for making a particular allocation should be justified in terms of the objectives of the FMP; otherwise, the disadvantaged user groups or individuals would suffer without cause. For example, an FMP objective to preserve the economic status quo cannot be achieved by excluding a group of long-time participants in the fishery. On the other hand, if there is a rational connection between an objective of harvesting a species at its maximum size, closing a nursery area to fishing would be allowable.
- (B) An allocation of fishing privileges may impose a hardship on one group if it is outweighed by the total benefits received by another group or groups. An allocation need not preserve the status quo in the fishery to qualify as ``fair and equitable," if a restructuring of fishing privileges would maximize overall benefits. The Council should make an initial estimate of the relative

benefits and hardships imposed by the allocation, and compare its consequences with those of alternative allocation schemes, including the status quo.

Part A above notes that allocation of fishing privileges should be considered in relation to achievement of OY or to achieve an objective of the FMP. In this case, the Council is being asked to the restrict access to New Jersey artificial reef sites in the EEZ to those recreational and commercial fishermen using rod and reel and hand line gear only in order to ameliorate gear conflicts between this gear type and fixed pot/trap gear. While this action would further the stated objectives of the New Jersey Artificial Reef Program, it does not specifically address any of the stated FMP objectives nor serve to achieve OY. Neither conclusion is surprising given the extremely small area of the ocean area occupied by the artificial reefs for which SMZ designation is sought.

The designation of these artificial reefs as SMZs will serve one of the MSA's purposes, that is the promotion of recreational fishing. It is important to continue funding for the establishment and maintenance of the artificial reef program because these areas serve to enhance recreational fishing for certain species of fish such as black sea bass in the areas of the reefs. These areas provide forage and shelter for these species with benefits accruing for both recreational and commercial fishermen using compatible gear types. While fixed pot/trap fishermen would be disadvantaged because they would no longer have access to these areas, the area affected comprises an insignificant percentage of the overall area where fishing with these gear types is not constrained. Fostering the orderly conduct of a fishery within these areas for compatible gear types is a legitimate objective particularly where the impact on those using non-compatible gear is certainly not significant.

Part B requires the Council to evaluate the tradeoffs between benefits and costs to the two user groups relative to SMZ designation on New Jersey EEZ reef sites. If the Council ultimately decides to designate New Jersey reefs as SMZs (which includes gear restrictions), some positive benefits would be expected to accrue to fishermen using rod and reel and handline gear through reduced gear conflicts. However, prohibition of fixed pot/trap gear as part of an SMZ designation would have a negative impact on that sector of the fishery since they would be denied access to these areas. However, given the small size of the areas affected and the few fixed pot/trap fishermen operating in these areas, the amount of these losses is speculative. Certainly, there will be adverse economic consequences for the few fixed pot/trap gear fishermen who concentrate their efforts in these areas. However, it may be stated generally that there will not be a significant impact on a substantial number of small entities. Further, the economic losses suffered by fixed pot/trap gear fishermen who are displaced from these areas could be mitigated to some degree by redirection of fishing effort to other fishing areas. The Monitoring Team lacks sufficient data to evaluate these tradeoffs quantitatively.

(ii) Promotion of conservation. Numerous methods of allocating fishing privileges are considered "conservation and management" measures under section 303 of the Magnuson-Stevens Act. An allocation scheme may promote conservation by encouraging a rational, more easily managed use of the resource. Or, it may promote conservation (in the sense of wise use) by optimizing the yield in terms of size, value, market mix, price, or economic or social benefit

of the product. To the extent that rebuilding plans or other conservation and management measures that reduce the overall harvest in a fishery are necessary, any harvest restrictions or recovery benefits must be allocated fairly and equitably among the commercial, recreational, and charter fishing sectors of the fishery.

As noted above, the SMZ designation request received by the NJDEP is based on the stated need to reduce gear conflicts between hook and line fishermen and fixed pot/trap gear on New Jersey reef sites in the EEZ. Certainly, the significant reduction or elimination of gear conflicts falls within the ambit of "wise use" of the resource in the artificial reef sites through the promotion of at least social benefits. More trips may be made to these areas if fishermen realize that they may no longer lose gear to fixed pot/trap gear. This could result in increased economic benefits for those commercial and recreational fishermen who choose to fish in these areas. Further, the elimination of fixed pot/trap gear should reduce or eliminate the presence of ghost fishing gear in the SMZ area. Certainly, given the small size of these artificial reef areas in comparison to the totality of available fishing grounds, these conservation benefits are expected to be less than significant. This conclusion does not have any measureable impact on the overall management scheme since fishing mortality for the sea bass stock is controlled by annual quotas which are allocated to the recreational and commercial sectors of the fishery based on historical performance of each sector. Thus limiting access to the artificial reef areas under an SMZ designation would not be expected to affect achievement of the FMPs conservation objectives one way or another.

(iii) Avoidance of excessive shares. An allocation scheme must be designed to deter any person or other entity from acquiring an excessive share of fishing privileges, and to avoid creating conditions fostering inordinate control, by buyers or sellers, that would not otherwise exist.

In the instant proposal, there is no direct allocation of quantifiable fishing privileges to individuals or entities in the form of individual fishing quotas. If the 13 reef sites in question are designated as SMZs, any fishermen, whether recreational or commercial, using appropriate gear could fish in the area without limitation (though subject to other restrictions imposed under the black sea bass FMP). The most that can be said is that the proposal represents an allocation to a particular gear type, that is rod and reel and handline (or other gears types if final action on this request results in prohibition of fixed pot/trap gear only). However, within the allowable gear sectors, no one individual or entity has an excessive share of the fishing privileges since anyone can participate at any level of fishing effort. Nor does the allocation to these particular gear sectors represent an excessive allocation of fishing privileges vis a vis other gear sectors. The areas under consideration for SMZ allocation represent less than 20 square nautical miles of the total available fishing area over the continental shelf off New Jersey. The fishing privileges in these areas yield but a small fraction of the total fishery-wide catch of species that are found in the artificial reef areas.

3.2 Consistency with the objectives of Amendment 9 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan, the Magnuson-Stevens Act, and other applicable law;

Consistency with Objectives of the FMP

The objectives of the Summer Flounder, Scup and Black Sea Bass FMP are to:

- 1) reduce fishing mortality in the summer flounder, scup, and black sea bass fisheries to ensure that overfishing does not occur;
- 2) reduce fishing mortality on immature summer flounder, scup, and black sea bass to increase spawning stock biomass;
- 3) improve the yield from the fishery;
- 4) promote compatible management regulations between state and Federal jurisdictions;
- 5) promote uniform and effective enforcement of regulations; and
- 6) minimize regulations to achieve the management objectives stated above.

The designation of New Jersey's 13 artificial reefs as SMZs appears to be unrelated to the first three management objectives which are designed to insure compliance with National Standard 1 (prevent overfishing), promote conservation of the resources managed under the FMP by reducing mortality on juvenile fish and improving yield from the fishery. For example, if fixed pot/trap gear were prohibited from NJ reef sites in the EEZ, it is likely that fishing effort by that gear type would shift to open areas. Even if all of the forgone catch of this sector from NJ reef sites was not recouped in open areas, the amount of catch in question (see below) is small relative to the overall quota for the fishery. Thus, any conservation benefits and/or effects on fishing mortality, reduction in mortality of juvenile fish and improvements in yield are expected to be minimal. Since fishing mortality in the black sea bass fishery is controlled by quotas, the issue of designation of SMZs to address gear conflicts would not be expected to affect the conservation of the black sea bass resource.

In terms of objective number 4, the designation of NJ reefs as SMZs would promote compatibility between state and federal regulations in as much as New Jersey has already enacted legislation restricting the use of fixed pot/trap gear on its permitted reef sites located in state waters. Therefore, an SMZ designation for NJ reef sites in the EEZ that restricts the same gear types would be compatible with state of New Jersey regulations in this regard.

Objective 5 of the FMP specifies that the Council promote uniform and effective enforcement of regulations. The request for SMZ status for New Jersey reefs is unrelated to this objective.

Objective 6 seeks to minimize the regulatory burden on the public to achieve the first five objectives of the FMP. The case has been made that the designation of New Jersey permitted reefs in the EEZ as SMZs has little to do with the achievement of the first five FMP objectives. Therefore, one could reasonably conclude that SMZ designation in this case is not necessary to achieve those objectives. Rather, the sole purpose of the designation of NJ reef sites as SMZs is to ameliorate gear conflicts (which is not contemplated in the any of the FMP objectives).

Consistency with the Magnuson Stevens Act and Other Applicable Law

For purposes of this report, the regulations intend that a consideration of consistency with the Magnuson-Stevens Act and other applicable law be a facial examination to identify any aspects of a proposed designation that may be inconsistent with the law. If the Council ultimately decides to forward a recommendation for designation to NMFS to implement SMZs through regulation, then a much more in-depth analysis of the consistency of the ultimate recommendation will be conducted.

When the SMZ provision was first recommended to NMFS by the Council in Amendment 9, an assessment of its consistency with the MSA was conducted by the Office of General Counsel during the review process leading to its approval. There is a provision at section 303(b)(2)(A), which deals with the discretionary provisions of an FMP or amendment, that contemplates measures such as an SMZ. It reads:

[Any fishery management plan may....] designate zones where, and periods when, fishing shall be limited, or shall not be permitted, or shall be permitted only by specified types of fishing vessels or with specified types and quantities of fishing gear

The designation of the 13, or fewer, artificial reef sites in Federal waters off New Jersey's coast does not raise any issues with respect to the national standards other than national standard 4, which is discussed above, or other provisions of the Magnuson Stevens Act.

There are a number of additional statutes and Executive Orders that must be considered when implementing any action recommended herein. These include the Administrative Procedure Act (APA), the Coastal Zone Management Act (CZMA), the National Environmental Policy Act (NEPA), the Regulatory Flexibility Act (RFA), the Marine Mammal Protection Act (MMPA), the Endangered Species Act (ESA), the Paperwork Reduction Act, the Information Quality Act, the Fisheries Enhancement Act, Executive Order 12866, and Executive Order 13132. At this seminal stage, most of these statutes and Executive Orders are inapplicable since we have no final recommendation by the Council or action taken by NMFS. Without these, for example there is no Federal activity or action for purposes of the CZMA and NEPA. However, since the State of New Jersey is proposing these areas, which are located in Federal waters off its coast, for designation one can infer that the proposal is consistent with its approved Coastal Zone Management Plan. Similarly, since the scope of the final areas to be designated as SMZ is unsettled, it is difficult to predict actual impacts on listed species and marine mammals. One should expect that since designation would eliminate fishing with fixed pot/trap gear in the areas, the impact on any listed species or marine mammals in the SMZs due to vertical lines in the water column would be significantly diminished. Given the limited expanse of water and bottom encompassed by the SMZs and the relative small number of fishermen that would be displaced by an SMZ designation, the economic impacts to be considered under the RFA and Executive Order 12866 would not be significant fleet wide. Further, it is reasonable to anticipate that the action will not have a significant impact on the human environment under the NEPA analysis associated with implementing SMZs. Since an SMZ designation, as currently conceived, does not have an information generating or reporting component, the Paperwork Reduction Act and the Information Quality Act are not implicated. In addition, since a designation would have to be implemented through the normal rulemaking process, the requirements of the APA will be satisfied.

The South Atlantic Fishery Management Council (SAFMC) has designated 51 artificial reefs in the EEZ off South Carolina, Georgia and Florida as SMZs under provisions contained in the Snapper Grouper FMP. The SMZ designations apply to each artificial reef and a 500 m buffer zone surrounding the boundaries of each reef and include a prohibition on the use of fish pots, fish traps, trawls and electric reels on permitted reef sites. In some of the SMZs, the use of powerheads (bang-sticks) to harvest fish is also prohibited and individuals harvesting fish using spearguns are limited to the recreational bag/size limits established within the snapper grouper management plan.

It is important for the Council to note that the basis for the SMZ designation by the SAFMC was fundamentally different from the rational stated by the NJ DEP. The DEP request is based on the need to ameliorate gear conflicts between the hook/line and fixed pot/trap gear. The rationale for designating artificial reefs contained in the Snapper Grouper FMP was as follows: "The intent of a SMZ is to create incentive to create artificial reefs and fish attraction devices that will increase biological production and/or create fishing opportunities that would not otherwise exist. The drawback to investing in artificial reefs or fish attraction devices is that they are costly and have limited advantages that can be rapidly dissipated by certain types of fishing gear (e.g., traps harvesting black sea bass from artificial reefs). Fishing gear that offers 'exceptional advantages' over other gear to the point of eliminating the incentive for artificial reefs and fish attraction devices for users with other types of fishing gear prevent improved fishing opportunities that would not otherwise exist". While a reduction in gear conflicts was discussed as a collateral benefit of SMZ designation by the SAFMC, the primary factor they considered relative to SMZ designation was related to the achievement of perceived conservation benefits on reef sites through prohibition of "efficient" gear types such as pot/trap gear, long lines and bang sticks.

3.3 The natural bottom in and surrounding potential SMZs

The Middle Atlantic Bight (the area of the U.S. east coast and continental shelf between Cape Cod, Mass., and Cape Hatteras, N.C.) is characterized as being a homogeneous habitat of relatively flat topography, composed of soft sediments, mostly sands, but grading to silt-clay in deeper areas except for relic sand and gravel ridges, exposed Holocene to Pleistocene clay or sandstone in some areas, and glacially exposed rock along the southern New England coast (Steimle and Zetlin 2000). The natural bottom in and surrounding potential SMZs (in this case the 13 reef sites permitted to the DFW) is described above.

Essential fish habitat (EFH) has been designated by the New England Fisheries Management Council, MAFMC and NMFS for a number of federally managed species including highly migratory species within the artificial reef sites. Habitat Areas of Particular Concern (HAPC) have been designated for sandbar shark at the mouth of Great Bay in the vicinity of the Little Egg Reef and within Delaware Bay inshore of the Cape May Reef. Through the COE permitting process, the COE and NMFS have evaluated the potential effects of the artificial reefs on EFH. It has been concluded that artificial reefs may have some adverse effects on EFH for species that are demersal and prefer open sandy bottoms, but the reefs would have a positive effect on EFH

and species that preferred structural habitat. Because hard surface, reef habitat is rare in the off New Jersey, consisting of primarily of shipwrecks and a few rock outcroppings, artificial reefs benefit EFH by provide lacking structure and habitat diversity, increased habitat for prey species and feeding opportunities. In addition, because certain fishing gear types such as dredges, trawls and gill nets are generally not used in and around artificial reefs, EFH and federally managed species benefit from reduced fishing pressure from these gear types.

A review of energy development site proposals for the Mid-Atlantic Area shows that several reef sites including the Atlantic City Reef are in or near the BOEM Wind Energy Area (WEA) for New Jersey where the OCS could be leased. However, BOEM has worked closely with the State of New Jersey and others (including NMFS) on the Task Force in developing the boundaries of the WEA. As a result, the reef site will not be part of any lease. Though the NEPA process of the leasing and site assessments, any potential impacts to reef from wind facilities proposed nearby will be evaluated.

3.4 Impacts on historical uses

3.4.1 Recreational Fishery

Three sources of marine recreational fishing data were considered for describing recreational fishing activity at the 13 NJ artificial reefs in question. The strengths and weaknesses of all three are discussed below.

Marine recreational fishing data collected through NMFS' Marine Recreational Information Program (MRIP), provides estimates of recreational catch, effort, and participation across states, fishing modes, and two-month waves. The MRIP data is also post-stratified spatially to provide estimates of catch and effort according to area fished. The MRIP spatial estimates, however, are limited to inland waters, state waters, and the federal exclusive economic zone. Thus, the spatial estimates provided by MRIP are not sufficient for describing private boat and for-hire recreational fishing activity occurring at an artificial reef. Please see http://www.st.nmfs.noaa.gov/st1/recreational/index.html for further information on the MRIP program.

Vessel trip reports (VTRs) submitted by for-hire recreational fishing vessels include the latitude/longitude of where most of the effort on a trip occurred, but the vast majority of the for-hire reports include only the nearest latitude/longitude degrees and not the latitude/longitude minutes and seconds necessary for pinpointing actual fishing locations. In addition, the VTR instructions state that fishermen must "enter a single set of latitude [longitude] bearings where most of your effort occurred." Thus, the entirety of a trip's effort is represented by a single set of points within each NMFS statistical area, regardless of how many different locations were fished during the trip. Given that the area of each artificial reef under SMZ consideration is generally less than one square mile, the precision of the self-reported VTR points was deemed inadequate for identification of for-hire activity occurring near or at a reef site.

The final data source was obtained from a reef creel survey conducted by the New Jersey Department of Environmental Protection (NJDEP) in 2000 (Figley 2001). This survey focused

on determining the level of participation, effort, and catch in New Jersey's recreational boat wreck/reef fisheries. The 2000 survey was a follow-up to two previous reef creel surveys conducted by the NJDEP in 1991 and 1995. Unfortunately, the 2000 survey was the last one conducted by the NJDEP. While the data collected from the 2000 survey are over 15 years old, in combination with more recent NMFS data on fishing effort and angler expenditures in New Jersey, estimates of angler trips and expenditures at the 13 artificial reef sites under SMZ consideration can be derived.

The 2000 NJDEP survey was conducted to assess the effectiveness of the State's artificial reef construction program and to collect information necessary for management of reef fisheries. A combination of telephone and onboard surveys was used. A full description of the methods can be found in Figley (2001). Results of the survey indicated that 105,160 private boat angler fishing trips and 97,013 party/charter angler fishing trips occurred at the artificial reef sites during 2000. This represents 2.8% of total New Jersey private boat angler fishing trips in 2000 (3,727,384), according to MRIP data, and 18.7% of total New Jersey party/charter boat angler fishing trips in 2000 (517,954). Since 2000, private boat angler effort in New Jersey has generally declined and reached its lowest level in 2015 (Figure 1). Party/charter angler effort in New Jersey has remained relatively stable over the past 15 years.

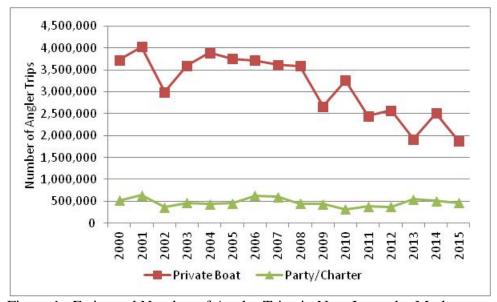


Figure 1. Estimated Number of Angler Trips in New Jersey by Mode

If it is assumed that the same proportions of angler fishing trips that occurred at the reef sites in 2000 has remained constant, then 52,930 private boat angler trips and 87,234 party/charter angler trips took place at the reef sites in 2015 (Table 1).

Table 1. 2015 Angler Trips in New Jersey and the Percentage that Occurred at Artificial Reefs

	Total Angler Trips	Angler Trips at Artifical Reefs	% of Total
Private Boat	1,876,955	52,930	2.8%
Charter/Party	465,745	87,234	18.7%

In light of the fact that decisions may be made that involve differential treatment of the 13 reefs, Table 2 shows the estimated number of angler trips at each of the reef sites by mode in 2015. These estimates should be viewed with caution since they were calculated by extrapolating from results found in Figley (2001). The importance of the reef sites to anglers, in terms of number of angler trips to a particular reef, may have changed during the past 15 years. Nonetheless, the estimates in Table 2 provide the best available approximation of the current distribution of angler effort at the reef sites.

The highest percentage of private boat angler effort at the artificial reefs is estimated to occur at the Barnegat Light site, followed closely by Little Egg, and then Sea Girt, Garden State South, Cape May, and Garden State North. These sites account for over 85% of angler private boat effort at the artificial reefs. The majority of charter and party boat angler trips occur at three reef sites: Cape May, Sea Girt, and Garden State North. These three sites account for over 63% of charter/party angler trips. In total, the reef sites that attract the most angler effort aboard private boats and charter/party boats are Barnegat Light, Little Egg, Sea Girt, Cape May, and Garden State North and South.

	Private		Charter/Party		Total	
	Trips	%	Trips	%	Trips	%
Atlantic City Reef Site	2,334	4.4%	7,122	8.2%	9,456	6.7%
Barnegat Light Reef Site	9,906	18.7%	3,786	4.3%	13,691	9.8%
Cape May Reef Site	6,372	12.0%	30,190	34.6%	36,562	26.1%
Deepwater Reef Site	*	*	*	*	*	*
Garden State North reef Site	6,309	11.9%	12,160	13.9%	18,468	13.2%
Garden State South Reef Site	6,687	12.6%	3,786	4.3%	10,473	7.5%
Great Egg Reef Site	1,641	3.1%	6,481	7.4%	8,122	5.8%
Little Egg Reef Site	8,516	16.1%	3,786	4.3%	12,302	8.8%
Ocean City Reef Site	1,703	3.2%	1,893	2.2%	3,596	2.6%
Sea Girt Reef Site	7,382	13.9%	12,801	14.7%	20,183	14.4%
Shark River Reef Site	252	0.5%	-	0.0%	252	0.2%
Townsends Inlet Reef Site	*	*	*	*	*	*
Wildwood Reef Site	1,829	3.5%	5,230	6.0%	7,059	5.0%
	52,930	100.0%	87,234	100.0%	140,164	100.0%

^{*} Too few trips at Deepwater to estimate angler effort and the Townsend Inlet reef site was constructed after the Figley (2001) report so angler effort at the Townsend site could not be estimated.

Black sea bass comprised the majority of anglers' catches at the New Jersey artificial reefs in 2000, followed by scup, summer flounder, and tautog (Figley 2000). When contrasted with MRIP data, about 13% of the total number of fish caught in New Jersey in 2000 were caught at artificial reefs. Additionally, the reefs accounted for approximately 53% of the total catch of the species encountered at artificial reefs (black sea bass, scup, summer flounder, tautog, cunner, and red hake). Thus, in relative terms, the reef sites contributed to the recreational catch of several species, particularly black sea bass and scup, at a much higher rate than the non-reef ocean environment in 2000. While recreational fishing activity at the artificial reefs may have changed somewhat since the Figley (2001) report, the importance of the artificial reefs to many recreational fishermen has likely remained strong.

Social and Economic Assessment

The total value recreational anglers place on the opportunity to fish at each of the 13 reef sites can be separated into (1) actual expenditures and (2) non-monetary benefits associated with satisfaction. In other words, anglers incur expenses to fish (purchases of gear, bait, boats, fuel, etc.), but do not pay for the fish they catch or retain nor for the enjoyment of many other attributes of the fishing experience (socializing with friends, being out on the water, etc.). Despite the obvious value of these fish and other attributes of the experience to anglers, no direct expenditures are made for them, hence the term "non-monetary" benefits. In order to determine the magnitude of non-monetary benefits associated with fishing at the 13 reef sites, demand curves for recreational fishing must be constructed. Unfortunately, data limitations preclude the ability to construct these demand curves for recreational fishing at the reef sites. Therefore, the angler assessment provided here is limited to describing only actual expenditures by anglers fishing at the reef sites.

Anglers' expenditures generate and sustain employment and personal income in the production and marketing of fishing-related goods and services. In 2014, an economic study of marine recreational fishermen (National Marine Fisheries Service 2016) estimated that average trip expenditures in New Jersey in 2014 were \$66.34 for anglers fishing from a private/rental boat and \$111.45 for anglers that fished from a party/charter boat. Trip-related goods and services included expenditures on private transportation, public transportation, food, lodging, boat fuel, private boat rental fees, party/charter fees, access/boat launching fees, equipment rental, bait, and ice.

Apart from trip-related expenditures, anglers also purchase fishing equipment and other durable items that are used for many trips (i.e., rods, reels, clothing, boats, etc.). Although some of these items may have been purchased specifically to fish at one of the artificial reef sites, the fact that these items can be used for multiple trips creates difficulty when attempting to associate durable expenditures with the artificial reefs. Therefore, only trip-related expenditures are used in this assessment.

Assuming that the average trip expenditures estimated in National Marine Fisheries Service (2016) are equivalent to the expenditures of anglers fishing at the artificial reef sites, total angler expenditures at the reef sites can be estimated by multiplying the average expenditure estimates by the estimated number of angler trips fished at the reef sites by mode. Based on the Figley (2001) report and MRIP data it is estimated that 2.8% of angler private boat fishing trips and

18.7% of angler party/charter boat fishing trips in New Jersey occur at the artificial reefs. Thus, according to the most recent year of available MRIP data (2015), 52,930 private boat and 87,234 charter/party boat angler trips occurred at the reef sites in 2015.

Table 3 shows the estimated total trip expenditures incurred by anglers to fish at the artificial reef sites in 2015. Across all reef sites, charter/party boat angler expenditures were almost three times higher than private boat angler expenditures. Private boat anglers spent an estimated \$3.5 million on trip expenditures while charter/party boat anglers spent over \$9.7 million to fish at the reef sites. In total, anglers are estimated to have spent over \$13.2 million on trip expenditures to fish at the 13 artificial reefs in 2015.

Table 3. 2015 Angler Trip Expenditures (\$'s) in New Jersey and the Percentage Associated with Trips that Occurred at Artificial Reefs

	Total Angler	Artifical Reef	
	Trip Expenditures	Expenditures	% of Total
Private Boat	124,517,195	3,511,376	2.8%
Charter/Party	51,907,280	9,722,229	18.7%
Total	176,424,475	13,233,605	7.5%

If designation of the artificial reefs as SMZs reduces gear conflicts, some level of positive social and economic benefits would accrue to recreational fishermen. Lost recreational fishing gear due to interactions with commercial gear in the water would be eliminated, saving anglers' and party/charter businesses money and lost time, and could actually result in higher catches per angler. Anglers may even take more trips to these areas raising angler expenditures and party/charter revenues. Although sufficient data to evaluate these potential changes in social and economic benefits to anglers is unavailable, designation of the artificial reefs as SMZs would likely result in positive benefits to both anglers and party/charter businesses fishing at the reef sites relative to taking no action.

3.4.2 Commercial Fishery

Impacts to commercial fishing were analyzed by mapping and quantifying recent fishing effort relative to the 13 artificial reefs. A Technical Memorandum outlining the mapping methodology was published by the NEFSC in 2014 (DePiper 2014) and a summary is provided here.

Federally permitted commercial and party/charter vessels are required to submit a VTR for each trip, the requirements of which include indicating a general fishing location as a set of geographic coordinates. These self-reported coordinates do not precisely indicate the location of fishing effort, given that only one point is provided regardless of trip length or distance covered during the trip. As indicated above, this means that the self-reported VTR points are generally inadequate for identification of party/charter or commercial fishing activity occurring near or at a reef site. The mapping approach used here assesses the spatial precision of the commercial fishing VTR points and derives probability distributions for actual fishing locations. This allows for more robust analysis of the commercial fishing VTR data by taking into account some of the uncertainties around each reported point. The mapping approach is applied only to commercial

fishing VTR data and not party/charter VTR data, because it requires use of Northeast Observer Program data that are not available for party/charter fishing trips.

Using observer data, for which precise fishing locations are available, a model was developed to derive probability distributions for actual fishing locations around a provided VTR point. Other variables likely to impact the precision of a given VTR point, such as trip length, vessel size, and fishery, were also incorporated into the model. The model allows for generation of out-of-sample predictions for the spatial footprint of a fishing trip, covering the universe of VTR data available. The model-generated dataset can be understood as a repeated measure of the distance on a single trip between observed hauls and the self-reported VTR location of fishing. The distance is equivalent to a radius of a circle centered around the self-reported fishing location within which there is a certain confidence of all a trip's hauls falling. For example, a one-day trip employing pot/trap gear in the Mid-Atlantic region has a 25% confidence interval extending 1.02 nautical miles from the self-reported centroid of the circle. This means that on average we would expect 25% of a one-day pot/trap trip's hauls to fall within a 1.02 nautical miles of a self-reported location. The 50% confidence interval for a one-day pot/trap gear trip extends out 2.51 nautical miles, the 75% confidence interval extends out 6.18 nautical miles, and the 90% confidence interval extends out 14.0 nautical miles.

This analysis includes all VTR commercial fishing trips employing pot/trap gear where the model-generated spatial footprint of a trip (using the 90% confidence interval) included one or more of the 13 artificial reef sites from 2011 through 2015. While commercial fishing vessels employing gear other than pot/trap gear will technically be regulated if the artificial reefs are granted SMZ status, only pot/trap gear vessel trips are included in this analysis. Hand gear and dive gear activities will continue to be allowed under SMZ designation, and vessels using other mobile gears and fixed gears stay clear of the reef site areas to avoid bottom hang-ups with reef materials.

Price information from Northeast Dealer Weighout data was used to transform all VTR catches on trips employing pot/trap gear into revenues. Reef site dependence was then assessed by calculating the percentage of total ex-vessel revenue derived from the reef site areas.

The mapping model does have important caveats. The probability distributions generated from each reported VTR point create a likelihood of actual fishing locations in all directions from a given point, and do not take into account any specific directionality that may be associated with specific fishing methods or specific locations. For example, the model does not take into account fishing behavior along depth contours or other specific habitat features such as an artificial reef. Thus, for self-reported VTR points located on the reefs the model-estimated distribution of fishing effort would tend to be expanded beyond the reef to areas that may not actually be fished. In contrast, for self-reported VTR points located outside of the reef areas the model-estimated distribution of fishing effort may attribute a portion of the effort to the reef areas. As such, given the uncertainty of the initial self-reported coordinates, it is difficult to determine if the overall model-estimated activity at the reef sites would tend to be over or under estimated. Nonetheless, since the model-estimated spatial footprint of a pot/trap trip is considerably larger than a reef site area, the model likely tends to underestimate reef activity on trips where most or all of the trip's landings occurred at a reef site. While the extent of this

underestimation is unknown, given that each reef site is generally less than one square mile it's unlikely that a significant number of trips concentrate most or all of their hauls on a reef site.

The number of VTR mapped commercial fishing trips during 2011 through 2015 that overlapped one or more of the reef sites for vessels employing pot/trap gear is shown in Table 4. In 2015, the model attributes a portion of the hauls on 826 pot/trap trips to the reef site areas. This means that there were an estimated 826 trips in 2015 where at least a portion of the landings on those trips was attributed to one or more reef site areas. Given the close proximity of some of the reef sites many pot/trap trips overlap more than one reef site. The model also estimates that vessels with reef site landings made an additional 1,234 pot/trap trips to areas that did not overlap with any of the reef sites. The percentage of trips that overlapped with one or more reef sites each year has remained relatively stable over the past five years. Although, in 2015 the number of reef site trips declined to its lowest level during the time series shown.

Table 4. Frequency of VTR Mapped Commercial Fishing Trips for Pot/Trap Vessels where the Estimated Spatial Footprint of the Trip Includes One or More of Reef Sites

1	2011		2012		2013		2014		2015	
	2011		2012		2013		2014		2013	
		% of								
	Trips	Total								
Reef Site Trips	971	43.9%	986	47.9%	933	39.2%	954	41.4%	826	40.1%
Other Site Trips	1,240	56.1%	1,074	52.1%	1,445	60.8%	1,352	58.6%	1,234	59.9%
	2,211		2,060		2,378		2,306		2,060	

Table 5 shows the percentage of mapped pot/trap trips by reef site. The reefs with the highest percentage of mapped pot/trap effort over the past five years are Shark River, Sea Girt, Cape May, Wildwood, Ocean City, and Townsends Inlet. In 2015, these six reef sites comprised approximately 80% of the mapped reef site effort along the New Jersey coast. The six reef sites are located in close proximity to areas along the northern and southern New Jersey coast where the vast majority of New Jersey commercial pot/trap activity takes place. Figure's 2, 3, 4, and 5 show the model-estimated spatial concentrations of total ex-vessel revenue from commercial pot/trap gear along New Jersey's coast from 2011 to 2014.

Comparing the mapped commercial pot/trap effort by reef site in Table 5 to estimates of recreational fishing effort at each reef site (Table 2), points to potential gear conflicts at the Cape May and Sea Girt reef sites, particularly between commercial pot/trap vessels and party/charter vessels. A relatively high proportion of VTR mapped commercial pot/trap fishing trips overlapped the Cape May and Sea Girt reef sites in 2015. Given that approximately half of the party/charter reef effort in 2015 was estimated to occur at the Cape May and Sea Girt reef sites, gear interactions may be occurring at these reef sites. The probability of gear conflicts at the other 11 reef sites is low, based on the recreational and commercial effort estimates shown in Table 2 and Table 5, respectively.

Table 5. Percentage of VTR Mapped Commercial Fishing Trips by Reef Site for Pot/Trap Vessels where the Estimated Spatial Footprint of the Trip Includes One or More Reef Sites

	2011	2012	2013	2014	2015	
	% of Total Reef Trips					
Atlantic City Reef Site	7.4%	6.6%	5.4%	2.8%	3.6%	
Barnegat Light Reef Site	3.2%	2.5%	3.1%	1.8%	2.4%	
Cape May Reef Site	7.3%	9.7%	7.9%	10.3%	11.2%	
Deepwater Reef Site	1.6%	1.8%	2.3%	1.8%	2.4%	
Garden State North reef Site	0.9%	1.1%	2.0%	0.5%	1.2%	
Garden State South Reef Site	0.7%	0.9%	2.5%	0.5%	1.0%	
Great Egg Reef Site	11.7%	9.1%	7.9%	6.5%	7.3%	
Little Egg Reef Site	3.4%	5.1%	3.3%	1.4%	2.2%	
Ocean City Reef Site	13.7%	9.7%	8.7%	10.1%	7.3%	
Sea Girt Reef Site	15.9%	18.3%	19.7%	20.8%	20.5%	
Shark River Reef Site	14.7%	18.9%	21.2%	21.7%	22.0%	
Townsends Inlet Reef Site	10.2%	6.2%	8.6%	10.5%	8.1%	
Wildwood Reef Site	9.4%	10.1%	7.4%	11.3%	10.8%	

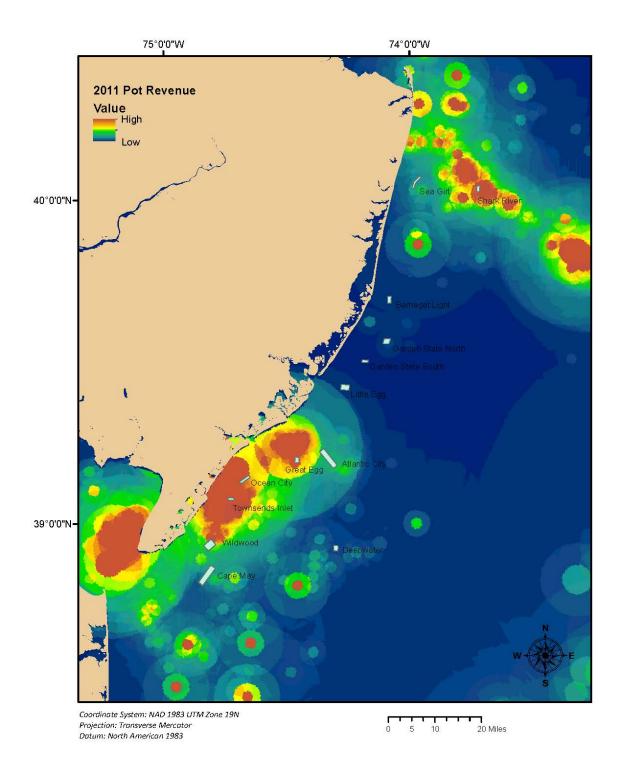


Figure 2. Ex-vessel Revenue Concentrations of Commercial Fishing Vessels using Pot/Trap Gear, 2011

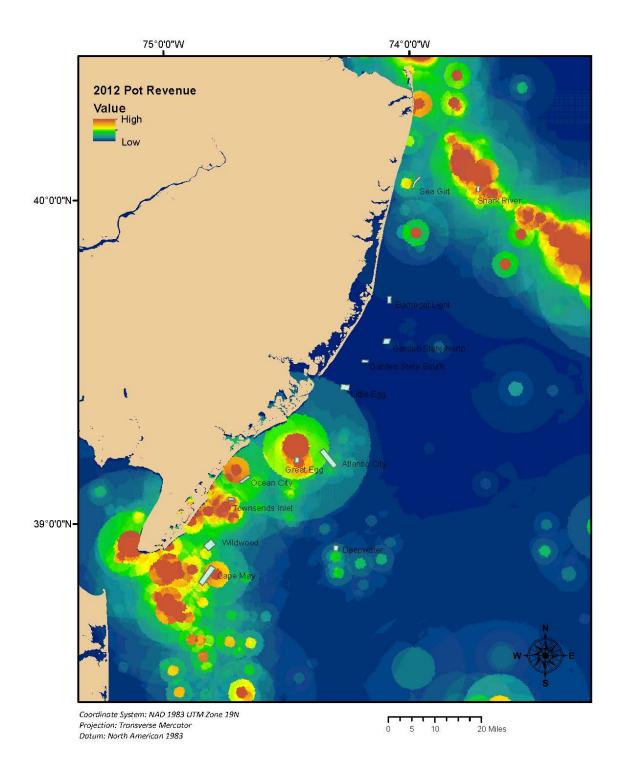


Figure 3. Ex-vessel Revenue Concentrations of Commercial Fishing Vessels using Pot/Trap Gear, 2012

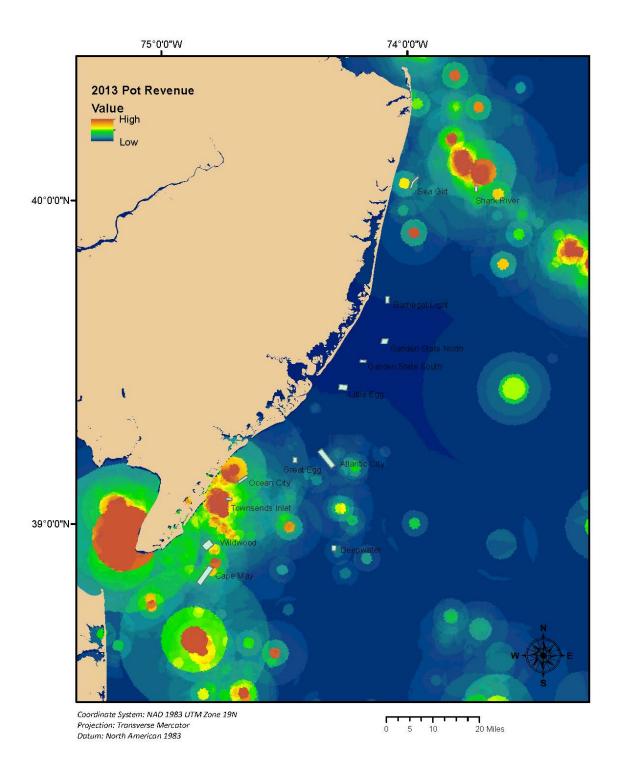


Figure 4. Ex-vessel Revenue Concentrations of Commercial Fishing Vessels using Pot/Trap Gear, 2013

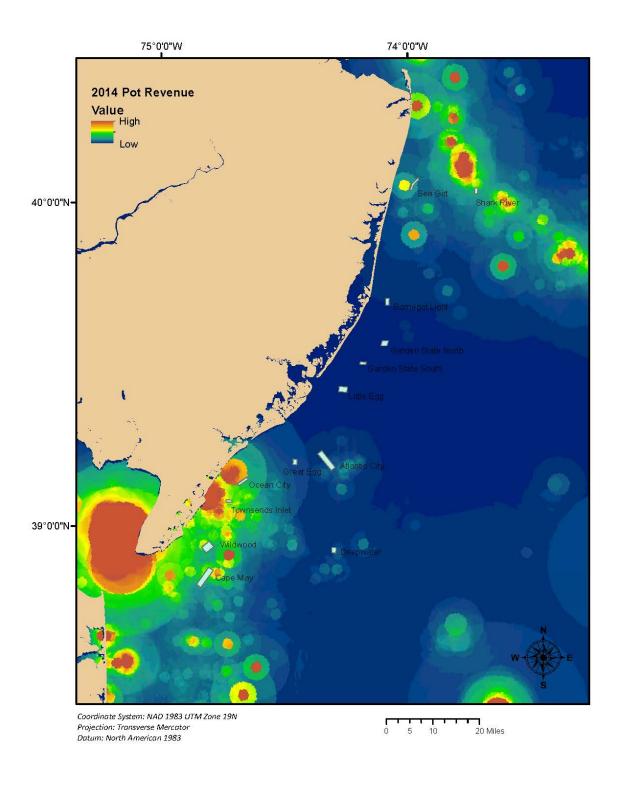


Figure 5. Ex-vessel Revenue Concentrations of Commercial Fishing Vessels using Pot/Trap Gear, 2014

3.4.2.2 Social and Economic Assessment

The estimated ex-vessel value of landings at each reef site provides an indication of the importance of the sites to commercial pot/trap fishermen. The VTR mapping approach attributed pot/trap gear ex-vessel revenue to all 13 of the reef sites in 2011, 2012, 2013, 2014, and 2015 (Table 6). Since 2012, the highest ex-vessel revenues were from landings at the Cape May reef site, which constituted almost half of the total ex-vessel revenue obtained from the 13 reef sites in 2015. Two other reef sites with measurable pot/trap ex-vessel revenue over the past few years include the Wildwood reef site and Ocean City reef site.

Table 6. Ex-Vessel Revenue of VTR Mapped Commercial Fishing Pot/Trap Trips where the

Estimated Spatial Footprint of the Trip Includes One or More Reef Sites

	201	1	201	2	20:	13	201	14	201	15
	\$'s	%								
Atlantic City Reef Site	3,002	13.4%	5,090	12.5%	1,224	4.8%	894	3.8%	1,422	5.7%
Barnegat Light Reef site	51	0.2%	41	0.1%	44	0.2%	35	0.2%	50	0.2%
Cape May Reef Site	2,086	9.3%	13,682	33.5%	9,757	38.3%	9,347	40.1%	11,761	47.2%
Deepwater Reef Site	103	0.5%	384	0.9%	373	1.5%	234	1.0%	2,273	9.1%
Garden State North reef Site	103	0.5%	35	0.1%	25	0.1%	8	0.0%	62	0.2%
Garden State South Reef Site	6	0.0%	2	0.0%	13	0.1%	2	0.0%	26	0.1%
Great Egg Reef Site	2,914	13.0%	9,602	23.5%	363	1.4%	257	1.1%	246	1.0%
Little Egg Reef Site	100	0.4%	104	0.3%	45	0.2%	11	0.0%	35	0.1%
Ocean City Reef Site	3,809	17.0%	2,313	5.7%	2,965	11.6%	3,025	13.0%	2,467	9.9%
Sea Girt Reef Site	680	3.0%	1,499	3.7%	1,314	5.2%	1,161	5.0%	1,605	6.4%
Shark River Reef Site	2,247	10.0%	2,391	5.9%	1,863	7.3%	1,052	4.5%	1,028	4.1%
Townsends Inlet Reef	3,607	16.1%	2,002	4.9%	3,204	12.6%	1,833	7.9%	832	3.3%
Wildwood Reef site	3,749	16.7%	3,684	9.0%	4,318	16.9%	5,458	23.4%	3,097	12.4%
Total	22,457		40,830		25,507		23,317		24,903	

It is important to point out, however, that since the size of each reef site is generally less than one square mile, the amount of pot/trap activity occurring at each reef site is limited. Ex-vessel revenue from pot/trap landings at all 13 reef sites combined approached only \$25 thousand in 2015. This represents less than one percent of total ex-vessel revenue (i.e., reef revenue and non-reef revenue combined) obtained by vessels with pot/trap reef landings in 2015 (Table 7). Over the past 5 years, ex-vessel reef revenue from pot/trap landings has remained below 1% of total ex-vessel revenue for vessels with pot/trap reef landings.

Table 7. Total Pot/Trap Gear Ex-vessel Revenue (\$'s) for Vessels with Reef Landings and the Percentage Derived from the Reef Sites

Year	Total Revenue	Total Reef Value	Reef %
2011	3,072,121	22,457	0.73%
2012	4,173,844	40,830	0.98%
2013	3,838,313	25,507	0.66%
2014	2,761,648	23,317	0.84%
2015	3,597,491	24,903	0.69%

The total revenue derived from reef trips by species is gi

When all pot/trap activity occurring in New Jersey is considered (i.e., ex-vessel revenue from vessels with and without reef landings), reef site ex-vessel revenue represented between 0.19% and 0.31% of total ex-vessel revenue from New Jersey pot/trap landings (Table 8).

Table 8. Total Pot/Trap Gear Ex-vessel Revenue (\$'s) in New Jersey and the Percentage Derived from the Reef Sites

	Total Revenue	Total Reef Value	Reef %
2011	12,029,983	22,457	0.19%
2012	13,288,816	40,830	0.31%
2013	11,520,749	25,507	0.22%
2014	9,401,312	23,317	0.25%
2015	9,530,137	24,903	0.26%

If all commercial fishing activity occurring in New Jersey is considered, reef site ex-vessel revenue by pot/trap gear represents 0.02% or less of total New Jersey ex-vessel revenue from 2011 - 2014 (Table 9).

Table 9. Total Ex-vessel Revenue (\$'s) in New Jersey (all gears) and the Percentage Derived from the Reef Sites

	Total Revenue	Reef %
2011	220,376,924	0.01%
2012	187,706,784	0.01%
2013	132,859,932	0.02%
2014	151,930,102	0.01%

Table 10 shows the estimated number of commercial fishing vessels that deploy pot/trap gear at the reef sites and the percent of their total annual gross revenue landed at the 13 reef sites. The number of vessels with landings at the reef sites ranged from a high of 50 in 2012 to a low of 36 in 2015. Approximately 80% to 89% of these vessels were estimated to land less than 1% of their total annual revenue from the reef sites during 2011 to 2015. All but one of the remaining vessels were estimated to land between 1% to 5% of their total annual revenue at the reef sites during 2011 to 2015. One vessel was estimated to have reef site landings equivalent to about 7% of its total annual revenue in 2014. However, total annual revenue for this vessel in 2014 was only \$2,763, of which \$185 (6.7%) was estimated to have been landed at one of the reef sites.

Based on the results shown in Table 10 commercial fishing vessels deploying pot/trap gear off the coast of New Jersey would likely face minimal to no losses in ex-vessel revenue if the artificial reefs are designated as SMZs. In addition, commercial pot/trap fishing effort at the reefs would shift to other open areas mitigating potential revenue losses. An important point to consider though is that pot/trap vessels likely fish at the reef sites because catch rates are higher and because conflicts with mobile gear vessels are reduced. Forcing pot/trap vessels out of these sites may increase the likelihood of conflicts with vessels fishing mobile gear.

Table 10. Number of Pot/Trap Vessels by Percent of Total Annual Ex-vessel Revenue Derived from the Reef Sites

	<=1.0%	1.0 to 5.0%	5.0 to 10.0%	>=10.0%	Total
2011	34	9	0	0	43
2012	39	11	0	0	50
2013	32	5	0	0	37
2014	32	5	1	0	38
2015	32	4	0	0	36

3.4.3 Recreational and Commercial Fishery Summary

In summary, there were low levels of commercial pot/trap activity at all 13 of the reef sites from 2011 to 2015. Ex-vessel revenue from pot/trap landings at all 13 reef sites combined was less than \$25 thousand in 2015, and averaged \$27.4 thousand from 2011 to 2015. The combined value of the landings at the reef sites comprised less than 0.31% of the total annual ex-vessel value landed by all pot/trap gear in New Jersey from 2011 to 2015.

The number of vessels with landings at the reef sites ranged from a high of 50 in 2012 to a low of 36 in 2015. Approximately 80% to 89% of these vessels obtained less than 1% of their total annual gross revenue from the reef sites during 2011 to 2015. All but one of the remaining vessels earned between 1% and 5% of their total annual revenue at the reef sites during 2011 to 2015. One vessel was estimated to have landings at the reef site equivalent to about 7% of its total annual revenue in 2014. This vessel's total annual revenue in 2014 amounted to only \$2,763 though, of which \$185 (6.7%) was estimated to have been landed at one of the reef sites. These findings indicate that commercial fishing vessels deploying pot/trap gear off the coast of New Jersey would likely face minimal to no losses in ex-vessel revenue if the artificial reefs are designated as SMZs.

The results also show potential gear interactions between commercial pot/trap vessels and recreational fishing vessels at two of the 13 artificial reef sites - Cape May and Sea Girt. The probability of gear conflicts at the other 11 reef sites is estimated to be low based on comparisons of commercial pot/trap and recreational activity occurring at the reef sites.

4.0 Recommendations

Based on the weight of evidence examined, the SMZ Monitoring Team recommends the following:

1. Based on evaluation of all relevant factors and issues as outlined in Amendment 9 to the Summer Flounder, Scup and Black Sea Bass FMP, the SMZ Monitoring Team recommends that the Council designate all 13 New Jersey's artificial reefs located in the EEZ as SMZs. The SMZ designation should stipulate that no fishing vessel or person on a fishing vessel may fish in the 13 New Jersey Special Management Zones with any gear except hook and line and spear fishing (including the taking of fish by hand).

- 2. The Council would reserve the right to change or revise these SMZs, including any gear restrictions imposed as a result of such designations, if future analyses cause the Council to alter its policy with respect to SMZs during a broader consideration of this issue.
- 3. The Council should review the 2007 National Artificial Reef Plan and modify (if necessary) the artificial reef policy it adopted in 1995 and consider incorporating its artificial reef policy into ongoing efforts to establish habitat policy within the context of an Ecosystem Approach to Fisheries Management.

6.0 References

DePiper, Geret (2014). Statistically Assessing the Precision of Self-reported VTR Fishing Locations. NOAA Technical Memorandum NFS-NE-229.

Figley, Bill (2001). Survey of New Jersey's Recreational Wreck/Artificial Reef Fisheries, 2000. New Jersey Department of Environmental Protection, Division of Fish and Wildlife, Marine Fisheries Administration, Bureau of Marine Fisheries. Fisheries Project F-15-R-41.

National Marine Fisheries Service (2016). Fisheries Economics of the United States, 2014. U.S. Dept. of Commerce, NOAA Tech. Memo. NMFS-F/SPO-163, 237p.

Steimle, F.W and C. Zetlin (2000). Reef Habitats in the Middle Atlantic Bight: Abundance, Distribution, Associated Biological Communities, and Fishery Resource Use. Marine Fisheries Review. Vol 62(2). pp 24-42.

Appendix 1

SMZ Monitoring Team

Travis Ford

National Marine Fisheries Service Greater Atlantic Regional Office 55 Great Republic Drive Gloucester, MA 01930-2276

Karen Greene

National Marine Fisheries Service Greater Atlantic Regional Office 55 Great Republic Drive Gloucester, MA 01930-2276

Richard Seagraves

Mid-Atlantic Fishery Management Council 800 N. State Street, Suite 201 Dover, DE 19901

Scott Steinback

National Marine Fisheries Service Northeast Fisheries Science Center 166 Water Street Woods Hole, MA 02543

Appendix 2 NJ SMZ Request Letter



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DEPARIMENT OF ENVIRONMENTAL PROTECTION NATURAL AND HISTORIC RESOURCES Office of the Assistant Commissioner

MAIL CODE 501-03A PO Box 420 Trenton, New Jersey 08625 609-292-3541/Fax: 609-984-0836 NOV 1 3 2015

November 6, 2015

Dr. Christopher M. Moore Executive Director Mid-Atlantic Fishery Management Council 800 N. State Street, Suite 201 Dover, DE 19901

Dear Dr. Moore:

CHRIS CHRISTIE
GOVERNOR

KIM GUADAGNO

Lt. Governor

I am writing to the Mid-Atlantic Fishery Management Council (MAFMC) to initiate the process for Special Management Zone (SMZ) designation for New Jersey's 13 artificial reefs in federal waters. I would like to request some time on the agenda for MAFMC's December 2015 meeting in Annapolis to discuss the potential for moving forward with the SMZ designation, including presentation of any materials the MAFMC deems appropriate to initiate this discussion.

Since the inception of New Jersey's Reef Program in 1984, and increasingly as reef development intensified and habitat increased, we have received complaints from individuals, head boat and charter boat captains, grassroots organizations and state legislators on behalf of their constituents that there is too much commercial gear on our reefs. The deployment of this gear severely limits recreational access to these reefs and makes unviable the intended hook-and-line use of these sites.

New Jersey's Reef Program was funded primarily through the U. S. Fish and Wildlife Service's (USFWS) Spot Fish Restoration Program (SFR), which is a "user pays, user benefits" program. Following several requests by the USFWS to resolve these user conflict and access issues, on April 12, 2011 SFR funding for the Reef Program and all reef construction and monitoring activities was discontinued for failure to address the issue. USFWS officials stated that funding to the Reef Program would be restored once these issues are resolved.

For the past two years, NJDEP has been working diligently with representatives from the recreational and commercial fishing sectors to develop regulations that balance access on our reefs located in marine State waters (Sandy Hook and Axel Carlson Reefs). This week, we promulgated regulations that will limit colmnercial gear to only small sections of these reefs. In addition, we also are proposing a new reef in marine State waters where colmnercial gear will be completely prohibited. While we have taken the necessary steps to restore recreational access on our State water reefs, recreational

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access to our 13 reefs in federal waters is still severely limited by commercial gear. Therefore we are requesting an SMZ designation that would completely prohibit commercial potting gear on all 13 of these reefs.

In June 2011, for its five reefs located in federal waters, the State of Delaware fom lally requested an SMZ designation from the MAFMC though the Black Sea Bass provisions of the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan. Following the necessary procedural stepsincluding evaluating the States request, producing and evaluating a report by the MAFMC's SMZ Monitoring Committee, holding public hearings, making a recommendation to the Nation Marine Fisheries Service Regional Administration, and ultimately a decision by the Regional Administrator in July 2015-four of the five reefs were granted the SMZ designation.

New Jersey is aware there are a several necessary logistical and regulatory steps that need to occur during this process and we will fully support and respect the MAFMC process, Monitoring Committee's evaluation and final determination by the Regional Administrator. However, I am hopeful that the Council will recognize the importance of SFR funding to our fisheries management activities in New Jersey and fully support this request. Again, we are willing to provide any additional information you believe is necessary for the December meeting.

My staff and I look forward to interacting with the MAFMC on this issue. Thank you for your consideration of this impoliant request. If you would like to discuss this matter prior to the December meeting, please contact Brandon Muffley, Marine Fisheries Administrator, at (609) 748-2020.

Sincerely,

Assistant Commissioner
Natural and Historic Resources

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Appendix 3 Mid-Atlantic Fishery Management Council - Artificial Reef Policy

In June 1995, the Council adopted five policy statements on artificial reefs and the associated effects of reef activities on fisheries under Council authority. The goal was to have Council policy for artificial reefs such that all States in the Mid-Atlantic are treated uniformly. As stated in the National Plan (1985), the Federal role is one of providing technical assistance, guidance and regulations for the proper use of artificial reefs by local governments in a manner compatible with other long-term needs and to improve coordination and communication on artificial reef issues.

1) Each new EEZ artificial reef site proposal must have a stated conservation and management objective.

It is the Council's position that unless an organization (local government or association) has a conservation and management objective for a reef site, there is no way to evaluate the potential costs and benefits associated with a reef proposal. In essence, without stated objectives an artificial reef proposal is little more than "ocean dumping".

2) The MAFMC endorses the National Artificial Reef Plan (1985) and encourages staff to work with ASMFC, NMFS, and the States in the updating of plan.

The MAFMC was not heavily involved in the development of the National Artificial Reef Plan in the early 198Qs because of higher priorities for fisheries that were under or attempting to be managed at that time. It is now the understanding that ASMFC is leading the reevaluation and updating of the Reef Plan and staff is encouraged to work closely in this endeavor. Artificial reefs have become much more important to MAFMC activities with the expansive efforts by States to locate additional reefs in the EEZ, as well as our management of additional species that frequently inhabit artificial reefs (e.g. black sea bass).

3) Only materials identified and acceptable in either the National Artificial Reef Plan (1985) or the Reef Material Criteria Handbook (1992) or revisions thereof should be used for the creation of artificial reefs.

The Council wants only materials that are "environmentally acceptable" to be used in artificial reefs. Environmentally acceptable deals with both the toxicity of materials and also the issue that materials have to be compatible with the reef site. The latter deals with the potential energy levels at the site, and the issue that what may be acceptable at one site may be unacceptable at a different site that has a much different energy level at the bottom. The Council is greatly concerned over the usage of tires for artificial reef sites specifically. Tires have recently been shown (MD studies) to be toxic to certain organisms at reef sites with low salinity (e.g. bays and estuaries where salinities of 15 ppt or less occur), but appear to not be toxic in high salinity. The Council still believEf3 that tires are an inappropriate material because of high energy levels in the ocean which inevitably leads to tire structure breakdown and thus mobility off the reef once they get caught up in ocean currents.

4) No fishery management regulations may be implemented for any artificial reef in the EEZ without concurrence by the MAFMC.

The Magnuson Act states that the Council shall "prepare and submit to the Secretary a fishery management plan with respect to each fishery within its geographical area of authority that requires conservation arid management...". It is the intent of the MAFMC that they agree with any attempt at fishery management around any artificial reef in the EEZ in the Mid-Atlantic off of New York through Virginia.

5) The Council will attempt to facilitate communication on the siting of any new artificial reef in the EEZ with various user groups of the proposed site.

Siting of new artificial reef is regulated by the US Army Corps of Engineers and often commercial and sport fishing interests are not well informed of Corps activities. Also individual States may coordinate with fishing interests within their State on artificial reefs, but the highly migratory nature of many fisheries necessitates information transfer to organizations beyond individual States. Council staff will attempt to widely distribute information on new sitings in the initial stages of reef proposals.

These five policy statements should help facilitate Federal, State, and local activities in the Mid-Atlantic and can only be beneficial to the ocean and coastal habitats.