

**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**

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**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 Northeast 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.

# New Jersey's Artificial Reef Network



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 nm<sup>2</sup>) 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 nm<sup>2</sup>) 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 nm<sup>2</sup>) 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 nm<sup>2</sup>) 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 nm<sup>2</sup>) 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 vertical clearance of fifty-two (52) feet below mean low water.

6. Little Egg Reef site (area=1.5 nm<sup>2</sup>) 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 nm<sup>2</sup>) 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 vertical clearance of fifty (50) feet below mean low water.

8. Great Egg Reef site (area=1.0 nm<sup>2</sup>) 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 vertical clearance of fifty (50) feet below mean low water.

9. Ocean City Reef site (area=0.8 nm<sup>2</sup>) 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 nm<sup>2</sup>) 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 vertical clearance of thirty (30) feet below mean low water.

11. Wildwood Reef site (area=2.1 mi<sup>2</sup>) 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 vertical clearance of thirty (30) feet below mean low water.

12. Cape May Reef site (area=4.5 nm<sup>2</sup>) 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 vertical clearance of thirty (30) feet below mean low water.

13. Deepwater Reef site (area=0.72 nm<sup>2</sup>) 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)(iii) 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 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, 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. Lastly, 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 rationale 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.

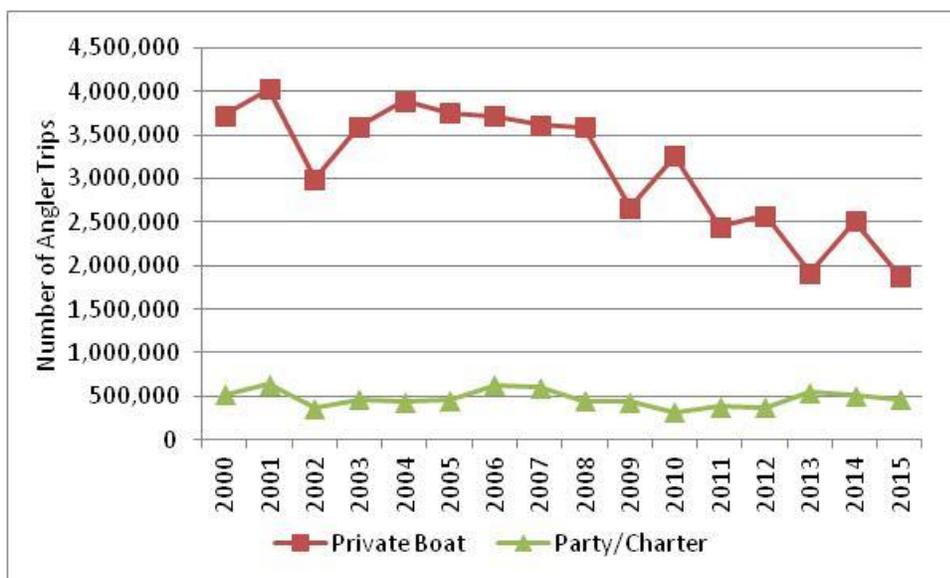


Figure 1. Estimated Number of Angler Trips in New Jersey by Mode

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 Artificial 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.

Table 2. Estimated Number of Angler Trips by Reef Site in 2015

	Private		Charter/Party		Total	
	Trips	%	Trips	%	Trips	%
Atlantic City Reef Site	2,334	4.4%	7,122	8.2%	6,559	4.7%
Barnegat Light Reef Site	9,906	18.7%	3,786	4.3%	24,783	17.7%
Cape May Reef Site	6,372	12.0%	30,190	34.6%	19,147	13.7%
Deepwater Reef Site	*	*	*	*	*	*
Garden State North reef Site	6,309	11.9%	12,160	13.9%	16,910	12.1%
Garden State South Reef Site	6,687	12.6%	3,786	4.3%	16,873	12.0%
Great Egg Reef Site	1,641	3.1%	6,481	7.4%	4,781	3.4%
Little Egg Reef Site	8,516	16.1%	3,786	4.3%	21,369	15.2%
Ocean City Reef Site	1,703	3.2%	1,893	2.2%	4,403	3.1%
Sea Girt Reef Site	7,382	13.9%	12,801	14.7%	19,621	14.0%
Shark River Reef Site	252	0.5%	-	0.0%	618	0.4%
Townsend Inlet Reef Site	*	*	*	*	*	*
Wildwood Reef Site	1,829	3.5%	5,230	6.0%	5,100	3.6%
	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	Artificial 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

	2011		2012		2013		2014		2015	
	Trips	% of 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%
Townsend's 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%

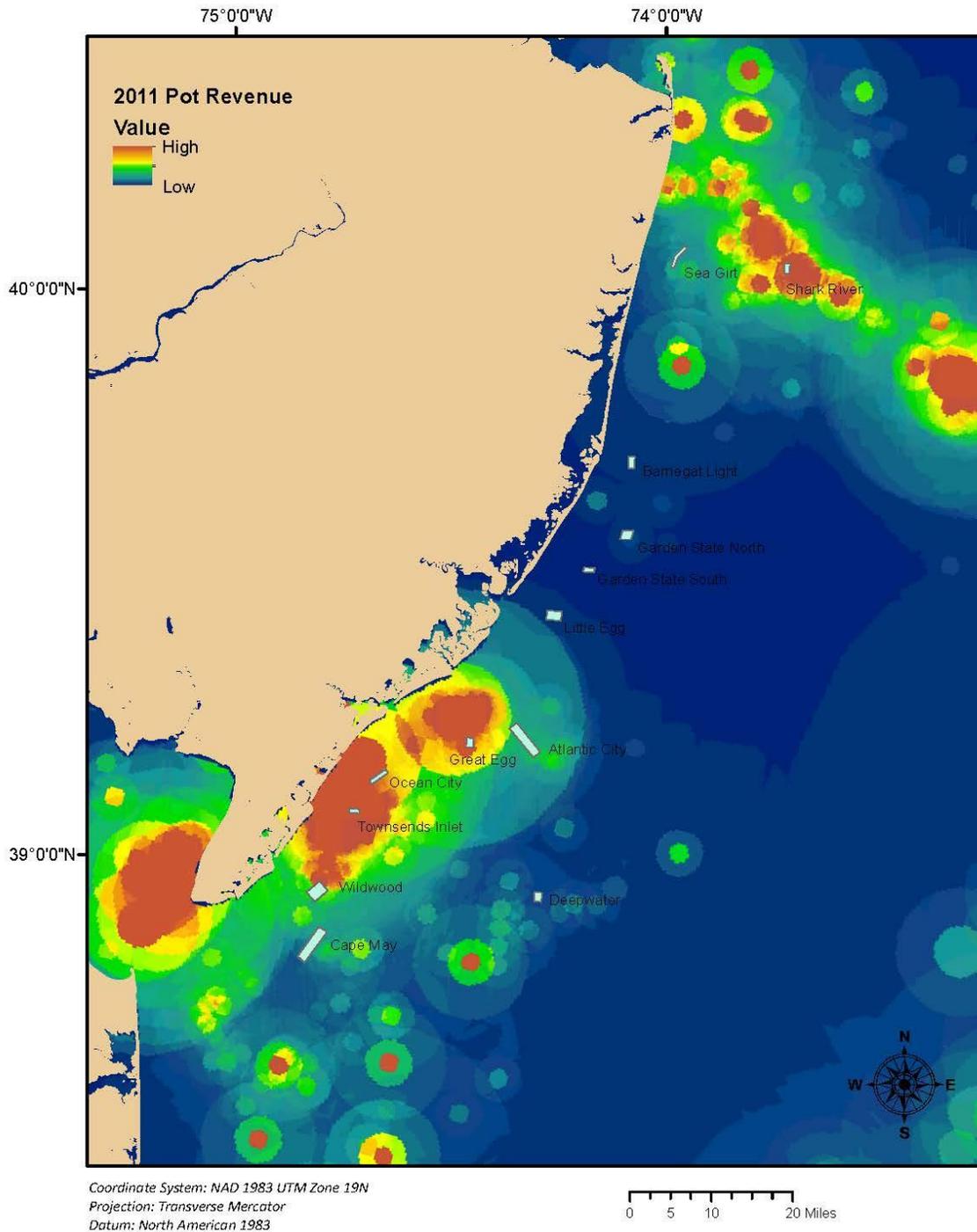


Figure 2. Ex-vessel Revenue Concentrations of Commercial Fishing Vessels using Pot/Trap Gear, 2011

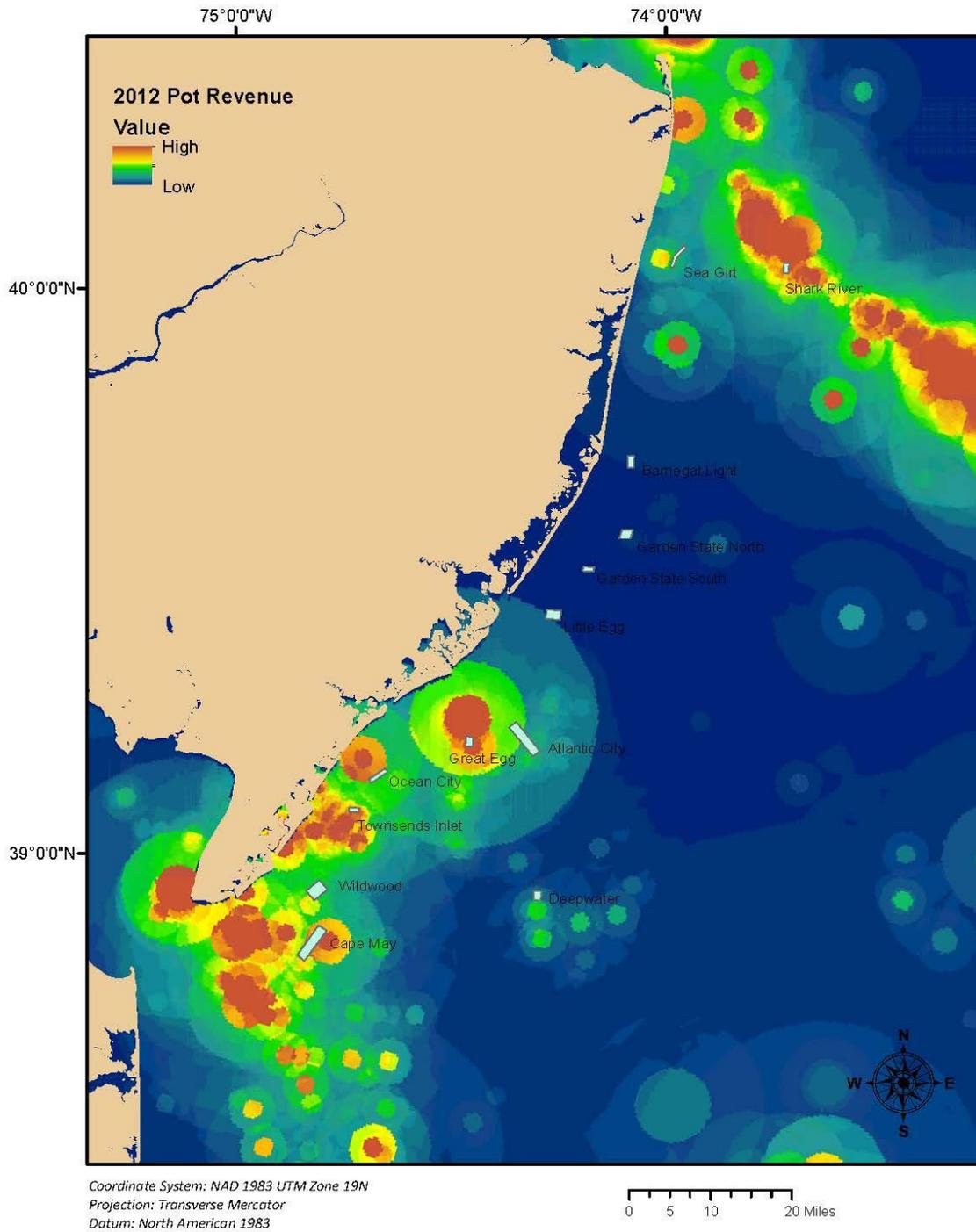


Figure 3. Ex-vessel Revenue Concentrations of Commercial Fishing Vessels using Pot/Trap Gear, 2012

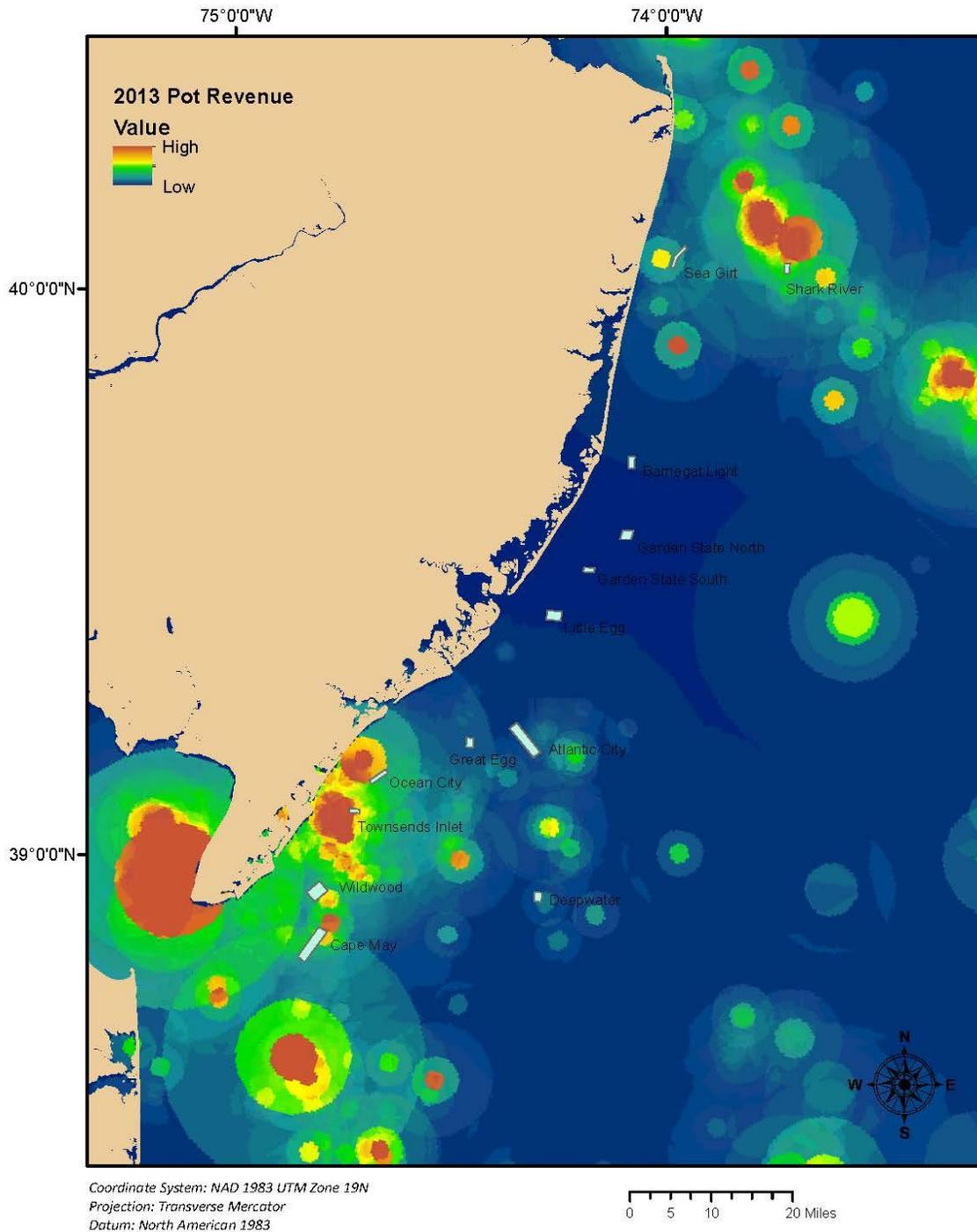


Figure 4. Ex-vessel Revenue Concentrations of Commercial Fishing Vessels using Pot/Trap Gear, 2013

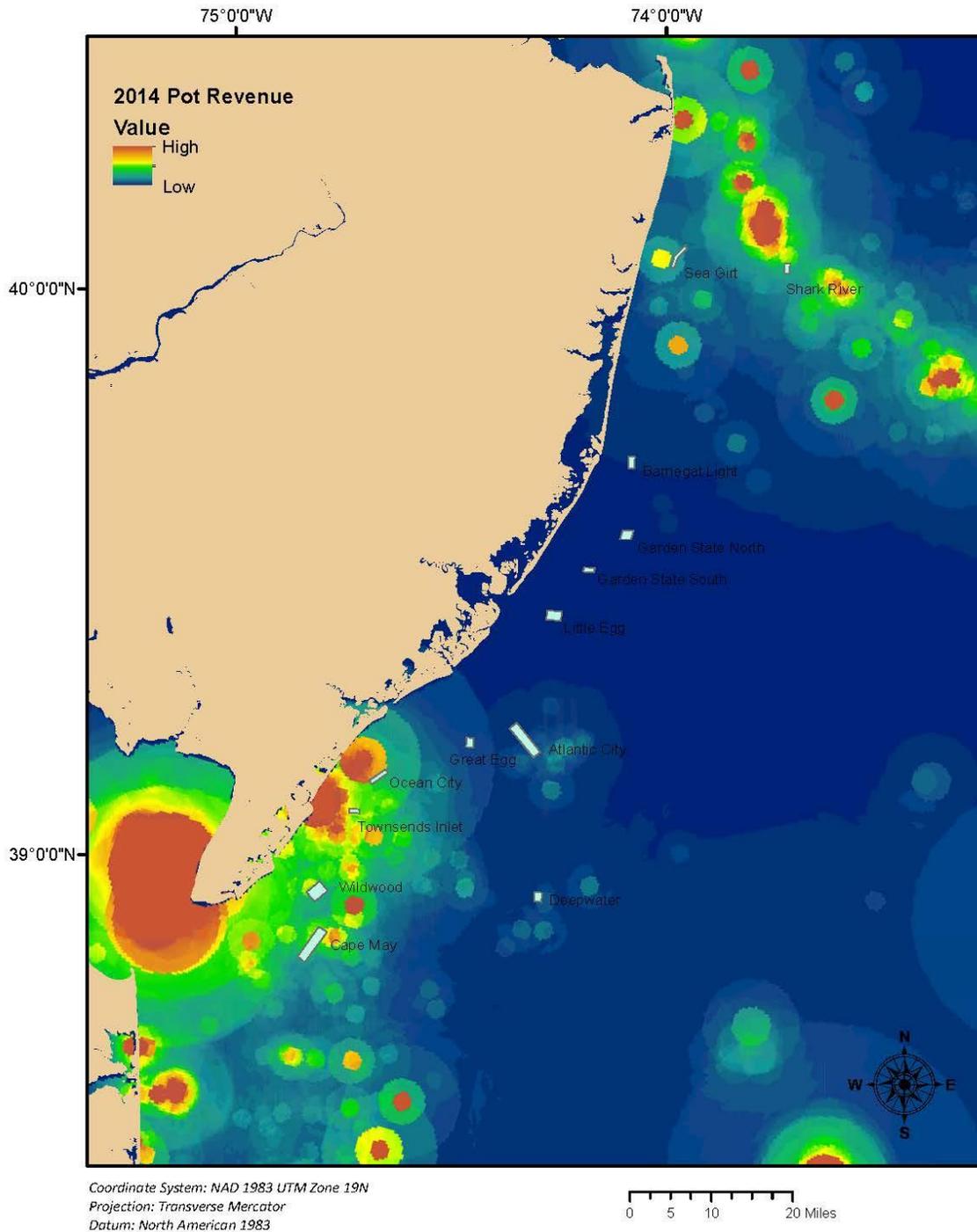


Figure 5. Ex-vessel Revenue Concentrations of Commercial Fishing Vessels using Pot/Trap Gear, 2014

### 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

	2011		2012		2013		2014		2015	
	\$'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%
Townsend's 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%

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

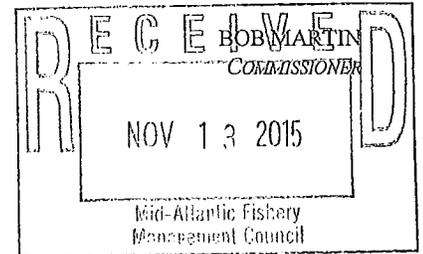
Appendix 2  
NJ SMZ Request Letter



State of New Jersey

DEPARTMENT 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



CHRIS CHRISTIE  
GOVERNOR

KIM GUADAGNO  
Lt. Governor

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:

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) 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.

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 commercial gear to only small sections of these reefs. In addition, we also are proposing a new reef in marine State waters where commercial gear will be completely prohibited. While we have taken the necessary steps to restore recreational access on our State water reefs, recreational

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 formally requested an SMZ designation from the MAFMC through the Black Sea Bass provisions of the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan. Following the necessary procedural steps—including evaluating the State's 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 important 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,

A handwritten signature in black ink, appearing to read "Richard Boornazian", with a horizontal line extending to the right.

Richard Boornazian  
Assistant Commissioner  
Natural and Historic Resources

### **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 1980s 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 believes 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.*

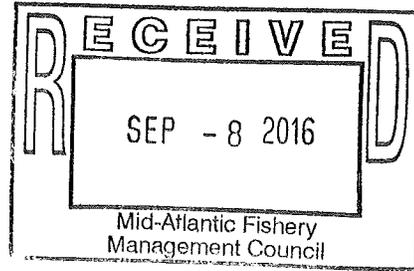
The Magnuson Act states that the Council shall "prepare and submit to the Secretary a fishery management plan with respect to each fishery within its geographical area of authority that requires conservation and management... ". It is the intent of the MAFMC that they agree with any attempt at fishery 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.

5 Sept 2016



Mid Atlantic Marine Fisheries Council  
Council members

Gentlemen;

RE: New Jersey SMZ request

Federal regulation 50 CFR 648.146<sup>1</sup> shows that before starting the procedure to implement an SMZ, you need to determine if the specific gear types being prohibited are not compatible with the ***intent*** (objectives) of the reefs.

But what is the intent of these 13 reefs that New Jersey is asking SMZs for? Is it what New Jersey said on its Army Corps reef permit application (Attachment 1A)? Or is it what New Jersey publishes on their web site and what the Sport Fish Restoration Program thinks (Attachment 1B)? Notice that these are NOT the same. What these clippings show is that New Jersey either lied to the Corps about the 4th objective: "*providing economic benefits to the fishing industry*", or that by leaving out that 4th objective, they didn't tell the Sport Fish Restoration Program the whole truth. Either way, New Jersey has **committed FRAUD with one of these federal agencies**. [STRIKE 1 !] But that's not the worst of it.

On your screen in the June 2011 ASMFC meeting was a slide showing how the former head of New Jersey's Artificial Reef program designed the reefs (Attachment 2). It shows that he designed them for ONLY recreational usages. But Federal law says that properly designed reefs are designed for recreational and commercial usages. And that one of the reefs' objectives is to "increase the production of fisheries products". Since this can only be provided by commercial activity, it is evidence that New Jersey didn't understand what it was supposed to be doing constructing Federal reefs..... and therefore they **designed them wrong**.....[STRIKE 2 !!]

It's shaky ground if you rely on any of New Jersey's statements about intents, objectives, or purposes of Artificial Reefs. But think about this for a minute: The reefs you are being asked to put SMZs on are NOT New Jersey's reefs. Jersey's reefs are the two in its state waters. But the 13 reefs you are dealing with are Federal reefs on Federal property. In Federal law 33 USC 2101 a(5), Congress spelled out a list of objectives that it said *properly designed* Federal artificial reefs, on Federal property can achieve. New Jersey built these 13 reefs, but New Jersey doesn't get to pick the objectives for these reefs. Congress said if the permit holder designs them properly<sup>2</sup>, then all of the Federal objectives can be achieved.

Improper design of these Federal reefs is most likely the cause of the conflicts happening now. But before you rush ahead and do what New Jersey is requesting, step back for a minute and consider: If you do it: will all of Congress' objectives be reached???? (Answer) NO..... The reefs will not create

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<sup>1</sup> See Attachment 3

<sup>2</sup> See Federal Law in Attachment 2

"enhanced fishing opportunities" or "increased energy efficiency" for the commercial fishermen as the Federal law<sup>3</sup> indicates that they should.

Do you see the problem with New Jersey's request? New Jersey's SMZ plan produces results that are far short of what Congress wants because under Jersey's plan, two of the five **things Congress wants to happen....can't possibly happen.** [STRIKE 3 !!!]

Congress left a lot of flexibility in the reef management game. It set the objectives for federal reefs, but within certain parameters [33 USC 2102 (2+3)] it left up to the permit holder the process of figuring how to achieve those goals. The problem with Jersey's plan, is that it strikes out..... It doesn't achieve Congress' objectives and it violates Congress' parameters. This was pointed out by Coast Guard LCDR Saunders at the Oct 2013 MAFMC meeting when he said:

***"...we're in essence excluding the commercial sector from these artificial reefs.."***

LCDR Saunders is a credible, unbiased USCG officer making a simple observation. He's pointing out that commercial fishermen will have NO VIABLE REEF FISHERY when an SMZ banning pots is implemented. But Mr. Boorsnazian of the NJDEP comes along, and implies that this officer is wrong. He wants you to believe that once Jersey's planned SMZ is implemented, commercial fishermen will have a *viable* reef fishery catching enough fish with hook and line to make a reasonable profit during the summer when the fish are on the reefs. (Jersey offers no proof of this.) He also wants you to believe that Jersey's recreational hook and line reef fishery has become *UNVIABLE*; even though as you saw at your last meeting in Aug 2016, recreational fishermen are currently exceeding their quota of sea bass by +70% (Attachment 3).

Gentlemen there are several statements about viability being made here that need to be evaluated.

- LCDR Saunders (USCG) says: commercial hook and line fishing on reefs is **UNVIABLE**.
- Mr. Boorsnazian (NJDEP) says: recreational hook and line fishing on reefs has become **UNVIABLE**.
- Mr. Boorsnazian (NJDEP) implies that: commercial hook and line fishing in the summer on the reefs is a **VIABLE** fishery.

Now stop and analyze the information you have concerning these statements:

- On one hand, LCDR Saundser's experience as a law enforcement officer and knowledge of what's happening on the ocean, leads one to believe that his statement .... is TRUE.
- On the other hand, the presentation at your last meeting; showing that recreational fishermen are currently over-catching their quota by +70% (See Attachment 3) shows you that Mr. Boorsnazian's statement..... is blatantly FALSE.
- But what about Mr. Boorsnazian's implication that hook and line fishing is a viable commercial fishery on these reefs? There's NOTHING to show if it's true or false !!

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<sup>3</sup> See Federal Law in Attachment 2

Gentlemen, you can't just assume that NJDEP's implication about commercial hook and line reef fishing being viable..... is true. Acting on an assumption while having some indication (Saunders's statement) that it is false... proves the adage that to assume is to make an "ASS" of U and ME. The bottom line here is that.... Jersey's only verifiable statement proves to be.... FALSE; and Jersey gave you ..... "NOTHING"; (not even data to show that a conflict is occurring that is significant enough to take action)..... to show that their SMZ plan would even comply with Federal laws 33 USC 2102 (2&3). The Council should be cautious in moving forward. This council needs to be assured that if NMFS implements what Jersey wants, it won't exacerbate the over-catching problem, (by golly.. How is recreational fishing *unviable* with a +70% quota over-catch?) and that the commercial fishermen will have a viable reef fishery when the dust settles.....

Yes..... New Jersey has reef funding problems..... But this Council can't let New Jersey's money problems divert it from its responsibility under the law. Federal law 33 USC 2102 mandates that you take a middle of the road reef policy for the two sectors of fishermen. It's not enough to say that commercial fishermen have a viable fishery in the rest of the ocean. This law says that this council has an obligation to assure that both fishing sectors have viable fisheries on the reefs. The commercial fishermen may have pushed the recreational guys off the reefs and into the ditch; if so, that's a problem that may need to be solved. But there's a ditch on both sides of the road to proper reef management. It would be a mistake if, by regulation, NMFS pushes the commercial fishermen into the ditch on the other side of the road by implementing an SMZ that leaves them without a viable reef fishery. Millions of consumers that depend on NMFS to manage Federal resources properly would suffer.

Gentlemen, as permit holder, New Jersey's responsibility was to present to this council a plan that would leave both sectors of fishermen with viable reef fisheries while minimizing the conflicts between them (33 USC 2102(2,3)). And to bring enough data to prove that their plan would work. But New Jersey didn't do that. It came here with a plan to help it get grant money by doing exactly what LCDR Saunders said.... "*excluding the commercial sector from the reefs*". Adopting Jersey's plan would be a blatant violation of Federal law 33 USC 2102 (2).

What you should do now is obvious: Abide by the law. Send New Jersey back to the drawing board and tell them that when they come back ... bring good data to show that their plan will leave both sectors of fishermen viable reef fisheries; while minimizing conflicts ... among uses... not simply eliminating commercial uses because their funder wants it that way.

The Old Fisherman .... >))))>.....  
Walt Chew

## Attachments 1A & 1B

**1A:** Hard copy clipping from NJDEP USACE (Army Corps) Artificial Reef permit application showing 4 project purposes.

### Attachment A

#### 19. Project Purposes:

- (1) Create reef habitat for 150 species of fish and marine life.
- (2) Provide new fishing grounds for anglers .
- (3) Provide underwater attractions for scuba divers.
- (4) Provide economic benefits to fishing industry.

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**1B:** Information taken from NJDEP web site (<http://www.state.nj.us/dep/tgw/artreef.html>) showing only 3 project purposes: (Data presented to the USFWS Sport Fish Restoration Program)

"The purpose is to create a network of artificial reefs in the ocean waters along the New Jersey coast to

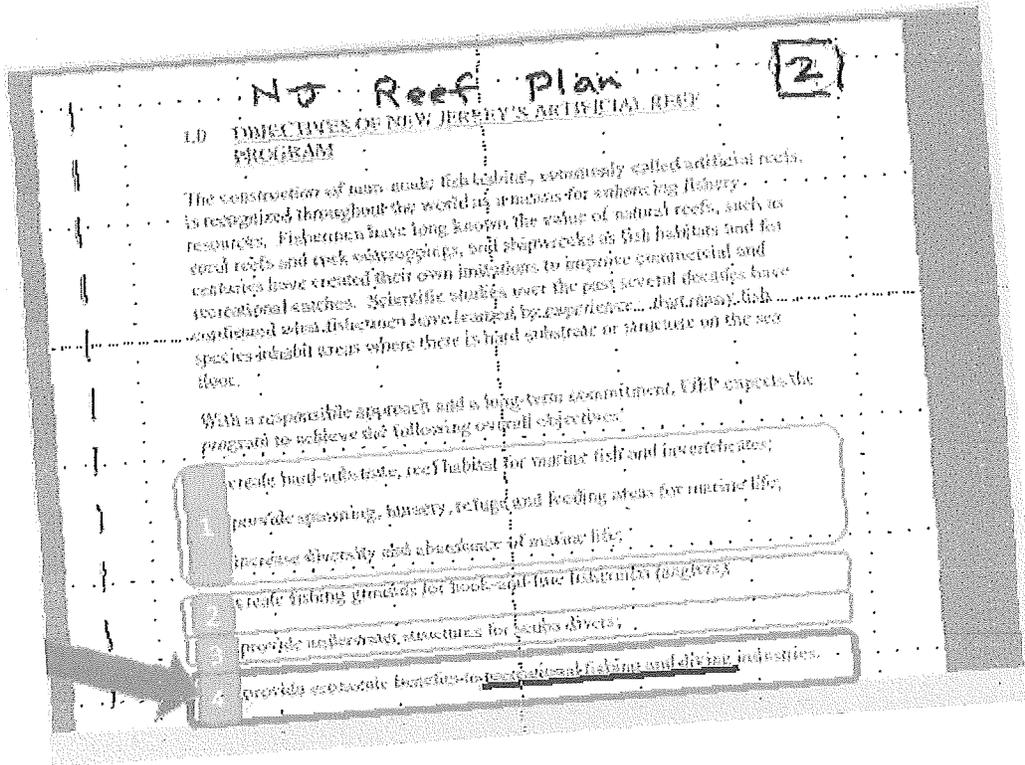
- 1) **provide a hard substrate for fish, shellfish and crustaceans,**
- 2) **fishing grounds for anglers, and**
- 3) **underwater structures for scuba divers."**

#4 is missing

Indicates that NJDEP committed FRAUD with one or the other of these two Federal Agencies.

# Attachment 2

Slide presented by Mr. Figley (former head of NJDEP Artificial Reef Program) at June 2011 MAFMC meeting;



Comparison of NJDEP design to Federal law 33 USC 2101 a(5) [below] shows that by designing for only recreational fisheries, NJDEP created an **IMPROPER DESIGN** of Federal reefs. (designed for economic benefits to recreational users only).

## Federal law: National Fishing Enhancement Act - Findings

### **33 USC 2101 a(5)**

(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 recreational and commercial fisheries;
- and
- contribute to the United States and coastal economies.

# Attachment 3

Aug 2016 MAFMC meeting; Section titled: *Black Sea Bass Specifications*

Slide # 15 of presentation

Year	Comm. Landings (mil lb)	Comm. Quota (mil lb)	Comm. % Overage (+)/Underage(-)	Rec. Landings (mil lb)	Rec. Harvest Limit (mil lb)	Rec. % Overage (+)/Underage(-)
2011	1.69	1.71	-1%	1.17	1.78	-34%
2012	1.72	1.71	+1%	3.19	1.32	+142%
2013	2.26	2.17	+4%	2.46	2.26	+9%
2014	2.18	2.17	0%	3.60	2.26	+59%
2015	2.45	2.21	+11%	3.97	2.33	+70%
5-yr Avg.	-	-	+3%	-	-	+49%

The NJDEP says: recreational reef fishery is has become UNVIABLE..... How is over catching by +70% consistent with a characterization of "UNVIABLE"?? Given this landing data, why would you want to make it easier for recreational fishermen to catch fish?

## Attachment 4: Laws

### Federal regulation:

#### ***50 CFR 648.146 Special management zones.***

*The recipient of a 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 Council as a special management zone (SMZ). The SMZ will 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. The establishment of an SMZ will be effected by a regulatory amendment pursuant to the following procedure:*

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### Federal law - National Fishing Enhancement Act- (National Artificial Reef Standards)

**33 USC 2102** “..... artificial reefs in waters covered under this chapter shall be ..... 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;