MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Policies on Non-Fishing Activities and Projects that Impact Fish Habitat

Contents

Council Fish Habitat Policies - Preamble 2

General Council Policies on Non-Fishing Activities and Projects 4

Engagement and Communication 4

Monitoring and Research 4

Buffers, Restrictions, Activity and Exclusion Zones 4

Decommissioning 5

Water Quality and Ballast Water 5

Council Policy on Offshore Wind 7

Best Management Practices and Stakeholder Engagement 7

Project Siting and Environmental Review 7

Construction and Operations 8

Navigation and Safety 9

Research and Monitoring 9

Council Policy on Offshore Oil 11

Council Policy on Marine Transport 13

General Policies 13

Policies on Operation and Maintenance of Ports and Marinas 14

Council Policy on Liquefied Natural Gas (LNG) 16

Council Policy on Coastal Development 18

General Policies 18

Policies on Water Quality (including Eutrophication, Toxic Contaminants, Ocean Acidification, and Water Physics) 18

Policies on Water-Dependent Coastal Development 20

Policies on Beach Nourishment 20

Policies on Wetland Dredging and Filling 21

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Council Fish Habitat Policies - Preamble

Fish require healthy surroundings to survive and reproduce. A fish's habitat is a combination of physical factors, such as water temperature and bottom type, chemical factors such as oxygen levels and dissolved minerals, and biological and ecological characteristics such as prey and forage. Many species of fish have different habitat requirements for each life stage (i.e., egg, larvae, juvenile, adult). Habitat plays an essential role in the reproduction, growth, and sustainability of commercial and recreational fisheries and is essential to the biodiversity of marine and coastal ecosystems.

Human activities have significantly altered coastal and marine habitat over time. A variety of factors have contributed to the degradation or destruction of fish habitat, including coastal development, land-based pollution, fishing gear impacts, invasive species, dams and other blockages that restrict the movement of migratory fish species, and changes in the volume and delivery of freshwater to estuaries. In addition, climate change and growing demands for new energy sources have the potential to cause wide-ranging impacts on fish habitat. Given the continued population growth and development in coastal areas, these pressures on coastal and marine habitats are expected to increase in the years to come. Also, it is important to note that once habitat is damaged or lost, it is difficult and costly to recover.

The Mid-Atlantic Fishery Management Council is responsible for the management of marine fisheries in the Exclusive Economic Zone. The Council develops management plans and management measures for fourteen species of fish and shellfish. Most of the Council's managed resources have strong nearshore and coastal linkages to habitat, and in many cases the nearshore and offshore environment for these managed resources is a continuum.

Fish stocks cannot be managed sustainably in the absence of a healthy marine ecosystem, and healthy fish habitat, which starts inland with freshwater stream and river inputs, and continues offshore to the outer continental shelf of the US Atlantic. Anthropogenic activities and projects within the Greater Atlantic region (i.e. Northeast region, including the Mid-Atlantic and New England waters) have the potential to impact the productivity of the Council's managed fishery resources[1], other federally-managed fish resources[2], state-managed fish resources[3], and the forage on which these fish rely. In addition, many of these activities have the potential to impact species protected under the Endangered Species Act and Marine Mammal Protection Act[4], such as marine mammals and sea turtles.

The Council is limited in its ability to address threats to fish habitat, as its authority is largely restricted to the development of fishing regulations. The National Marine Fisheries Service (NMFS) and the Council have the ability to provide recommendations to Federal or state agencies concerning proposed activities that

[1] Mid-Atlantic Council managed stocks: Atlantic mackerel, black sea bass, Atlantic bluefish, butterfish, shortfin squid (*Illex*), longfin squid (*Loligo*), ocean quahogs, scup, spiny dogfish, summer flounder, Atlantic surfclams, golden tilefish, and monkfish.

[2] Other Federally-managed fish stocks: American lobster, Atlantic herring, Atlantic salmon, Atlantic sea scallop, Atlantic sturgeon, shortnose sturgeon, red crab, river herrings, skates, whiting and other hakes, cod, haddock, yellowtail flounder, pollock, plaice, witch flounder, white hake, windowpane flounder, Atlantic halibut, winter flounder, redfish, Atlantic wolffish, and ocean pout (http://www.nefmc.org), highly migratory species such as tunas, sharks, swordfishes, and billfishes (http://www.nmfs.noaa.gov/sfa/hms/), as well as other southern Atlantic fish species (http://www.safmc.net).

[3] For lists of state managed fish stocks, see http://www.asmfc.org.

[4] For lists of protected resources, see: http://www.nmfs.noaa.gov/pr/species/index.htm.

may affect the habitat, including essential fish habitat (EFH), of a fishery resource under its authority.[5] The Council is also involved in a range of habitat management and conservation initiatives through collaboration with its partners in the Greater Atlantic region.

In an effort to more effectively address anthropogenic (human) activities that threaten fish habitat, the Council has developed a series of policies that articulate its positions on the following issues: wind energy, offshore oil, marine transport, liquefied natural gas (LNG), and coastal development. By clearly communicating its positions on anthropogenic activities, the Council can more effectively comment and collaborate with partners and other agencies to address these threats.

The following principles guided the development of these policies:

1. An ecosystem approach, which considers the long-term health of essential habitat and its linkages within the ecosystem, is fundamental to the sustainable use of all marine resources.

2. It is imperative that the impacts of anthropogenic activities on sensitive habitats be considered when evaluating the appropriateness of human uses that impact marine and coastal areas.

3. Not all areas require equal levels of protection, since they are not all equally ecologically or biologically significant or vulnerable to particular stressors.

Given the extent of anthropogenic activities in the Greater Atlantic region, it is important that the Council articulate its position on these issues. The numerous activities occurring in the coastal zone result in compounding, cumulative impacts on the environment which must be addressed to the extent possible if fisheries productivity and ecosystem function are to be maintained. Actions and policies that protect and restore fish habitat and marine and estuarine ecosystem function, are clearly an investment in the health of our coastal communities, and the fisheries on which they depend.

[5] Section 305(b)(1)(D) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires the Secretary [of Commerce] to coordinate with other Federal agencies regarding the conservation and enhancement of EFH. Section 305(b)(2) requires all Federal agencies to consult with the Secretary on all actions or proposed actions authorized, funded, or undertaken by the agency that may adversely affect EFH. Sections 305(b)(3) and (4) direct the Secretary and the Councils to provide comments and EFH Conservation Recommendations to Federal or state agencies on actions that affect EFH. Section 305(b)(4)(B) requires Federal agencies to respond in writing to such comments. NMFS coordinates with each Council to identify the types of actions on which Councils intend to comment and shares pertinent information with the Councils, including copies of NMFS' EFH Conservation Recommendations. Each Council establishes procedures for reviewing Federal or state actions of concern and may coordinate on comments and recommendations with NMFS. However, NMFS and the Councils also have the authority to comment independently.

General Council Policies on Non-Fishing Activities and Projects

Approved 12/7/2015

The following sections highlight Council policies that apply to most or all of the non-fishing activities that are occurring in the Greater Atlantic region.

Engagement and Communication

Engage Early - Early consultation by project developers with agencies (such as NOAA Fisheries) is critical to support the planning needed for monitoring and data collection.

Early Communication - Early communication between project developers and the fishing industry(s) and other stakeholders is a critical component of conflict avoidance and mitigation. A communications strategy about the project should be developed to engage the full range of regional fishing interests.

Sustained Communication – There should be sustained communication about project activities with stakeholders (i.e., vessel presence, activities, etc.).

Coexistence - If projects are sited in areas where fishing occurs, the siting should minimize impacts on existing fisheries and fisheries resources, and should accommodate the coexistence of fishing activities in the project area.

Monitoring and Research

Before and After Environmental Monitoring - Environmental monitoring should be conducted in project areas before, during, and after project development and operations to understand the potential and realized impacts on habitat. An environmental baseline should be established before construction begins, along with a timeline that specifies when and what type of information will be collected.

Before and After Economic Monitoring - Economic baselines should be established prior to project development to evaluate a project's projected and actual impacts to fisheries, fisheries infrastructure, and fishing communities.

Monitoring Data - Project monitoring information should be reviewed for any unanticipated adverse impacts to allow remediation or mitigation measures to be considered. Monitoring data should be archived in NOAA's National Centers for Environmental Information (NCEI), regional portals, or other sites such as: https://www.ncei.noaa.gov/ or http://midatlanticocean.org/data-portal/

Research - Increasing investment in research and monitoring is needed to provide a better understanding of expected impacts and support improvements in the consultation process. Dedicated funding to support habitat research should be prioritized.

Sound – Information is lacking on background ocean sound levels, how they are changing over time with increased development and maritime activities, and what the impact is on marine life. The Council supports investment in research to understand the impacts of both acute and chronic sounds on marine life.

Buffers, Restrictions, Activity and Exclusion Zones

Timing Restrictions - Project activities (exploration, construction, and operations) should be timed to occur when the fewest species, least vulnerable species, and least vulnerable life stages are present. Appropriate

work windows should be established based on multi-season pre-construction biological sampling in the affected area.

Activities Restrictions – Project activities should not occur in sensitive areas, including those sensitive areas already prohibited to fishing by the Council.

Buffers - If activities with significant adverse impacts on sensitive habitat, species, or life stages are to be conducted, protective buffers should be used to prevent adverse effects.

Exclusion Zones - Guidelines should be established that specify when, where, and how marine exclusion zones can be established for project development and activities. Project developers should engage early with the Council and other site user groups to address access issues (e.g., project/operations exclusion zones), such as maritime passage, fishing, and other associated hazards (e.g., homeland security).

Effective Footprint – Projects should consider both the structural and effective footprint when evaluating habitat impacts. For all human activities and projects, the immediate structural footprint as well as the effective footprint of the activity should be considered. For example, wind facilities have a footprint associated with the actual wind turbine structures, moreover, they have an effective footprint in that they may influence currents, which can influence bottom structure (sand) through scouring and pelagic water column habitat important for eggs of squid and other species. Similarly, beyond the structural footprint of liquefied natural gas (LNG) facilities, the plants may have security buffers implemented by the Department of Homeland Security, which could limit navigation and access the fishing grounds. The effective footprint of a particular activity or project may be significantly larger than the structural footprint, thus the impact to habitat and fishing grounds may be much larger than when just considering the structural footprint of the project or activity.

Activity Corridors – Regional planning[6] is needed to limit the cumulative negative impacts on fish habitat from widespread coastal and ocean development activities. Increased coordination on development activities across permitting agencies, and restricting activities to development corridors may reduce or limit cumulative habitat impacts.

Decommissioning

Decommissioning of Projects/Platforms - Decommissioning options for platforms such as those used in liquefied natural gas, oil, and wind production should be developed during project planning. However, projects should re-consult with the appropriate agencies before decommissioning to provide an opportunity for consideration of best decommissioning methods because original decommissioning options may be decades old and may not make use of best available technologies. It also allows for consideration of platforms to remain for alternative uses (e.g., oil platforms decommissioned for use as artificial reefs in the Gulf of Mexico).

Water Quality and Ballast Water

Contaminants - The Council supports practices which reduce inputs of contaminants that impact water quality and can have major deleterious effects on fishery species that utilize estuaries or coastal habitats. Chronic exposure to contaminants can cause bioaccumulation in fish species and compound impacts

[6] In 2010, a Presidential Executive Order established a National Ocean Policy and created Regional Planning Bodies (RPBs) to coordinate and implement regional ocean planning with state, Federal, tribal, and Fishery Management Council representatives.

throughout food webs. More detailed policies on this subject can be found in the Coastal Development Policy Document.

Eutrophication - Eutrophication of estuaries and nearshore waters in the Mid-Atlantic adversely impacts fisheries and essential fish habitat. Thus the Council supports policies, projects, and investments that reduce point and non-point sources of eutrophication. More detailed policies on this subject can be found in the Coastal Development Policy Document.

Ocean Acidification - The Council supports policies, practices, and investments in research to address issues related to carbon emissions and associated ocean acidification. More detailed policies on this subject can be found in the Coastal Development Policy Document.

Ballast Water - Best management practices for ballast water exchange and/or treatment during shipping and maritime transport, should be employed to reduce the risk of ecological impacts from invasive aquatic species.

Council Policy on Offshore Wind

Revised 12/13/21

Policy Goal: *The Council supports efforts to mitigate the effects of climate change, including the development of renewable energy projects, provided risks to the health of marine ecosystems, ecologically and economically sustainable fisheries, and ocean habitats are avoided. To the extent that they cannot be avoided, they should be minimized, mitigated, or compensated for.*

Best Management Practices and Stakeholder Engagement

1. Best management practices[7] should be employed throughout all phases of offshore wind development and operations to avoid adverse impacts on fish, their prey, and their habitats, and to prevent conflicts with other user groups, including recreational and commercial fisheries.
2. The Bureau of Ocean Energy Management (BOEM) and offshore wind developers should engage early and often with the fishing community. Outreach should include individual fishermen and fishing businesses, recreational and commercial fishing organizations, NOAA Fisheries, state resource management agencies, regional science entities, including the Responsible Offshore Science Alliance, other NGOs, the Regional Fishery Management Councils, and any other interested stakeholders. Engagement should focus on collaboration, shared problem identification, option generation, problem solving, and move beyond only information sharing and communication as its primary purpose and intent.
3. BOEM and developers should communicate in a timely manner how comments from the Regional Fishery Management Councils and other stakeholders were considered, as well as the impacts of those comments.

Project Siting and Environmental Review

4. Developers should accurately map and characterize all benthic habitat types throughout the entire project area (including cable corridors), especially complex habitats and deep-sea coral habitats that are sensitive to impacts, in accordance with NOAA Fisheries' Recommendations for Mapping Fish Habitat.
    a. Complex habitat is defined in NOAA Fisheries' Recommendations for Mapping Fish Habitat (March 2021) as: 1) Hard bottom substrates; 2) Hard bottom substrates with epifauna or macroalgae; and 3) Vegetated habitats (e.g., submerged aquatic vegetation and tidal wetlands).
    b. These maps are essential for EFH consultations and to support other management and science needs.
    c. Transmission cables, wind turbines, electrical service platforms, or other structures should not be placed in areas with complex habitats.
    d. Surveys should be completed as early as possible in the development process with associated data shared to the maximum extent possible to facilitate the review of each project.
    e. Robust survey information should be collected to facilitate micrositing of foundations and alternative cable routing if complex habitat is detected.
    f. Habitat characterization and benthic monitoring should occur at all phases of the project: prior to and during construction, as well as during the operational phase to track changes over time.
5. The Environmental Impact Statement should evaluate the range of potential impacts from construction, operations, and decommissioning to fishery species and fisheries from physical habitat conversions and losses, scour and sedimentation, construction and operational noise, electromagnetic fields,

[7] MAFMC Offshore Wind Best Management Practices Workshop (2014); BOEM Final Report on Best Management Practices and Mitigation Measures (2014)

micrometeorological effects, and water-column hydrodynamic effects (including impacts to the Mid-Atlantic Cold Pool, as well as thermal changes and changes in currents that influence pelagic habitats). The information provided in the COP, including the detailed results of site assessment surveys and proposed environmental mitigation and monitoring measures, should support this evaluation. The EIS should clearly document how impact determinations were made.
    a. Impacts to fisheries and habitats should be avoided; and if avoidance is not possible, they should be minimized and mitigated to the fullest extent possible.
    b. All life history stages should be considered (i.e., egg through adult), and include activities such as spawning, breeding, feeding, and seasonal migrations.
    c. Cumulative impacts should be assessed both within and beyond an individual project (across multiple projects within a single lease area) as well as across multiple wind energy projects across the region (considering the effects across adjoining lease areas), and considering other actions which impact the sustainability of the fisheries.
6. The Council endorses developing and analyzing alternatives in the Environmental Impact Statement that are explicitly designed to avoid, minimize, and mitigate habitat and fisheries impacts.
7. When ongoing research identifies new fisheries or habitat-related concerns in wind energy areas, BOEM should consider these results and data in siting and permitting decisions and apply the precautionary principle[8].

Construction and Operations

8. The technology that is least impactful to aquatic ecosystems should be used for transmission cable installation. This may include horizontal directional drilling to avoid impacts to sensitive fish habitat.
9. Export and inter-array cables should be buried to an adequate depth to reduce conflicts with other ocean uses, including fishing operations and fishery surveys, and to minimize effects of heat and electromagnetic field emissions. Cables should be monitored after installation and large storm events to ensure bathymetry is restored and to ensure cables remain buried. All cables should be removed during decommissioning.
10. If scour protection or cable armoring is needed, the materials should be selected based on value to commercial and recreational fishery species[9]. The locations where cable armoring materials (e.g., concrete mattresses) are installed should be documented, disseminated, and monitored. Natural materials, or materials that mimic natural habitats, should be used whenever possible. These materials should not be obtained from existing marine habitats. The materials used must not be toxic.
11. Boulder relocation should be minimized. If boulders or unexploded ordnance must be relocated, their new locations should be clearly documented and this information disseminated to the fishing community.

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[8] The Food and Agriculture Organization of the United Nations states "Management according to the precautionary approach exercises prudent foresight to avoid unacceptable or undesirable situations, taking into account that changes in fisheries systems are only slowly reversible, difficult to control, not well understood, and subject to change in the environment and human values" https://www.fao.org/3/w3592e/w3592e07.htm

[9] For examples, see:

Glarou, M., M. Zrust and J. C. Svendsen (2020). "Using Artificial-Reef Knowledge to Enhance the Ecological Function of Offshore Wind Turbine Foundations: Implications for Fish Abundance and Diversity." Journal of Marine Science and Engineering 8(5).

Hermans, A., O. G. Bos and I. Prusina (2020). Nature-Inclusive Design: a catalogue for offshore wind infrastructure. Den Haag, The Netherlands, Wageningen Marine Research: 121p.

Lengkeek, W., K. Didderen, M. Teunis, F. Driessen, J. W. P. Coolen, O. G. Bos, S. A. Vergouwen, T. C. Raaijmakers, M. B. de Vries and M. van Koningsveld (2017). "Eco-friendly design of scour protection: potential enhancement of ecological functioning in offshore wind farms. Towards an implementation guide and experimental set-up." (17-001): 87p.

12. Noise generated by wind facilities should be minimized, including sounds produced during surveys (e.g., survey vessel operations and acoustic sampling devices), construction (e.g., installation vessel operations, pile driving, cofferdam installation), and operation (e.g., maintenance vessel operations, spinning turbines).
13. Developers should avoid in-water activities during spawning seasons or settlement periods (especially for species that have distinct spawning locations and may be sensitive to noise, for example Atlantic cod, or are sensitive to sedimentation impacts, such as longfin squid). If not able to avoid these periods, developers should use noise mitigating and dampening measures for any in-water activities that produce sounds that may injure organisms or alter their behavior. Construction should be monitored in real-time to detect the presence of spawning aggregations, and construction restrictions should be implemented to protect these aggregations as needed.
14. When cooling systems are considered for specific projects (e.g., at AC/DC conversion stations), impacts on marine species and habitats should be fully evaluated and monitored. Effects include but are not limited to the loss of zooplankton and fish eggs/larvae due to water entrainment and associated temperature differentials from discharge waters, which may impact both the entrained species and their predators. Impacts of cooling systems should be avoided or minimized.
15. Consideration should be given to utilization of existing fishing community and other stakeholder resources (e.g., fishing vessels) for construction and operations activities.

Navigation and Safety

16. The Council supports turbine and transit lane arrangement and spacing that will reduce impacts to fishing vessel navigation[10].
    a. These issues should be coordinated across offshore wind projects and developers.
    b. Developers should consult directly with affected fishermen to develop project layouts that minimize impacts.
17. Threats to safety and navigation (e.g., radar disruption, ice shedding, vessel allisions and collisions, security threats, and impacts on search and rescue efforts) should be routinely monitored within and around wind projects. Safety issues should be efficiently identified and addressed using best management practices (see footnote 3).
18. For floating wind turbines, locations of inter array cables, mooring lines, and anchors in the water column around each turbine should be clearly marked using the most appropriate technology.
19. Wind service platforms should implement adequate fuel spill response plans and protocols[11] for support vessels and platforms.

Research and Monitoring

20. Research and monitoring should be conducted at project and regional scales to understand project-specific and cumulative effects on aquatic species, habitats, and ecosystems. Important research topics include but are not limited to:
    a. Acoustic issues: impacts of geotechnical and geophysical surveys, benefits of applying additional noise dampening technology during construction or operations, and differential acoustic impacts of larger vs. smaller turbines on the ecosystem, including on fish behavior.
    b. Short and long-term impacts of wind facility operations on aquatic species and ecosystems: impact-producing factors include habitat changes, specifically reef effects and habitat conversion, electromagnetic fields, hydrodynamic changes, and turbine noise. Individually and

[10] Navigation encompasses both fishing and transit.

[11] Consistent with the US Coast Guard, US Environmental Protection Agency, Occupational Safety & Health Administration/HAZMAT, and other state or Federal requirements.

in combination these factors may alter managed species' distributions, behaviors, and predator-prey relationships.

c. The Council develops and routinely updates a list of research priorities, including priorities related to fisheries and offshore wind. Work supporting these priorities is also recommended.
d. Monitoring should occur 2-3 years before, during, and after construction for the life of the project at regular intervals.
e. There may be important area-specific / project-specific issues that require tailored research in project areas to understand effects that go beyond what is described above. Once preliminary impacts are determined, expertise should be sought (from the Fishery Management Councils) to fully understand impacts.

21. Developers should coordinate monitoring survey designs and methods across projects wherever possible to generate datasets that can be used in combination. Benthic habitat, geological and geophysical, and fisheries surveys should be coordinated to ensure that the prosecution of one survey does not affect the results of another. Coordinated monitoring will support cumulative impacts analysis.
22. Consideration should be given to the impacts of research and monitoring on fisheries. For example, research which may negatively impact fisheries should not be carried out during peak fishing seasons. Developers should consult with the Regional Fishery Management Councils and commercial and recreational fishermen regarding the most important times of year.
23. Monitoring and survey designs should be consistent with regionally developed survey mitigation and monitoring protocols, including the Responsible Offshore Science Alliance's monitoring framework and guidelines[12], NOAA Fisheries regional survey mitigation protocols (under development), and NOAA Fisheries habitat monitoring recommendations (under development).
24. Developer-funded monitoring and research data should be made publicly available on a timely and regular basis, while protecting fishermen's confidential business information.
25. Consideration should be given to utilization of existing fishing community and other stakeholder resources (e.g., fishing vessels) for research and monitoring activities.

Compensation and Mitigation

26. The Council supports the development of a compensatory mitigation fund for damages that occur to the marine environment and fish habitat as well as damages or losses to fishing vessels or their gear, or reductions in operations/revenues, resulting from wind activities.
27. The Council supports the creation of a fisheries development and research fund related to ecosystem changes associated with offshore wind energy development, for example to facilitate development of new fisheries or fishing techniques or enhance existing fisheries.
28. Federal and state-operated fishery independent monitoring surveys are critically important for stock assessments and setting fishery catch limits. Impacts to these surveys should be avoided whenever possible and minimized and mitigated where avoidance is not possible.

[12] Available at: https://www.rosascience.org/resources

Council Policy on Offshore Oil

Approved 12/7/2015

Policy Goals: *The Council supports policies for US energy development that will sustain the health of marine ecosystems and fishery resources while minimizing the risks to the marine environment and fisheries.*

1. The Council is committed to the effective stewardship of the marine fisheries and associated habitats in the Mid-Atlantic region. The environmental risks associated with offshore oil development and operations are not consistent with the Council's vision for healthy and productive marine ecosystems supporting thriving, sustainable marine fisheries.

2. Renewable energy, if implemented in a manner which minimizes impacts on fish habitat and fisheries, may be more consistent with the Council's vision for sustainable fisheries.

If offshore oil development moves forward:

3. Best management practices should be implemented throughout offshore oil development and operations to avoid adverse impacts on fish habitat and conflicts with other users groups, including recreational and commercial fisheries.

4. Coordination should occur across regions to avoid conflicts between Highly Migratory Species fishing tournaments and oil development surveys (e.g., seismic testing).

5. Nearshore/onshore facilities associated with exploration and production (e.g., pipelines, access roads and bridges, and other structures) should not be constructed through areas with sensitive fish habitat such as shellfish beds, fish spawning and/or nursery habitat areas, submerged aquatic vegetation (SAV), or hard/structured habitat.

6. The need for additional dredging should be reduced by expanding or repurposing sites with existing deep water facilities, such as existing oil facilities and other industrial sites or ports.

7. Handling of oil during transportation should not occur in sensitive fish habitat.

8. Offshore oil development should not occur in sensitive habitats already prohibited to fishing, including discrete and broad areas on the Outer Continental Shelf identified for deep sea coral protection.

9. The Council encourages the use of the best commercially available technology, including horizontal directional drilling, to avoid potential impacts to sensitive habitat.

10. Monitoring and leak detection systems should be used at oil extraction, production, and transportation facilities to prevent oil from entering the environment.

11. The disposal of chemicals/contaminants used in petroleum development should be rigorously regulated. The discharge of chemicals, produced waters, drilling muds, and cuttings into marine and estuarine environments should be avoided. Frac-out plans should be developed, and produced waters should be reinjected into the oil formation, whenever possible. The physical and chemical effects of discharges on pelagic and benthic species and communities should be carefully monitored.

12. Potential adverse impacts to marine resources from oil spill clean-up operations should be weighed against the anticipated adverse effects of the oil spill itself. The use of chemical dispersants in nearshore areas where sensitive fish habitat is present should be avoided.

13. Oil production and transportation facilities should develop and implement adequate oil spill response plans and protocols[13]. These plans should:

    a. Include the identification of sensitive marine habitat;
    b. Include methods to track the movement of spills;
    c. Ensure adequate response equipment is immediately available; and
    d. Allow researchers to have timely access to impacted areas, as needed.

14. Short- and long-term impacts from sound during exploration, construction, and operation on the environment/ecosystem (including marine mammals, sea turtles, fish populations, and associated fisheries) should be evaluated and minimized using time and area restrictions (see General Council Policies).

15. The Council supports the development of a compensatory mitigation fund for damages that occur to the marine environment and fish habitat as well as damages to fishing vessels, their gear, and operations/revenue, as a result of offshore oil activities.

[13] Consistent with the US Coast Guard, US Environmental Protection Agency, Occupational Safety & Health Administration/HAZMAT, and other state or Federal requirements.

Council Policy on Marine Transport

Approved 12/7/2015

Policy Goals: *The Council supports marine transport practices which minimize environmental impacts and address issues related to coastal resiliency. In addition, the Council supports practices for ports and marinas that reduce the input of nutrients and contaminants into the aquatic environment. This policy applies to both non-fishing and fishing maritime vessels and infrastructure.*

General Policies

1. Investments in port and marina infrastructure should include plans that will increase coastal resiliency and resiliency of infrastructure.

2. Where appropriate, smaller marine transport projects should consider opportunities to provide the public with fishing access.[14]

3. Activities that require dredging should use best practices for siting and should be designed to avoid the need for frequent maintenance dredging.

4. Sources of excessive sedimentation in the watershed should be identified, and best management practices should be implemented to ensure that actions are taken to reduce or curtail those load sources.

5. Developers should consider expanding existing ports with deep water facilities, to reduce the need for maintenance dredging.

6. Projects which propose the expansion and/or alteration of existing ports/facilities should evaluate other nearby ports/facilities to examine the feasibility of using those in lieu of new construction and dredging.

7. Dredging should not be conducted in areas with sensitive fish habitat such as shellfish beds, fish spawning and/or nursery habitat areas, submerged aquatic vegetation (SAV), or hard/structured habitat.

8. The placement of maritime infrastructure in or adjacent to sensitive fish habitat should be avoided.

9. Seasonal restrictions and spatial buffers should be used during dredging to reduce adverse impacts on fish spawning, egg development, young-of-year development, and migration periods, and to avoid secondary impacts to sensitive fish habitat.

10. Best management practices and equipment (e.g., adjust lift speeds, use environmental bucket or hydraulic dredge, avoid barge overflow) should be used to minimize turbidity plumes to reduce adverse impacts of suspended sediments on adjacent benthic resources.

11. The effects of increased boat traffic to an area should be considered when assessing a new dredging project or expanding existing channels. Increases in the volume of boat traffic may require

[14] Contact the state's natural resource management agency to discuss options/opportunities during project development.

more frequent maintenance dredging, which could produce secondary impacts, such as shoreline erosion, sedimentation, and turbidity.

12. Shade produced by over-water structures can alter aquatic/benthic ecosystems. Guidelines or requirements (state/federal) for over-water structures should be employed to minimize the shade footprint created by these structures. Consideration should be given to the impacts of a structure's height, width, construction materials, and orientation.

13. Testing should be conducted prior to dredging and/or disposal of dredged material to ensure that contaminant levels of sediments do not exceed US EPA or state requirements and standards.

14. Beneficial uses for uncontaminated sediments should be considered when practicable and feasible. Priority should be given to beneficial uses of material that contribute to fish habitat restoration and enhancement, landscape ecology approaches, and includes pre- and post-disposal surveys.

Policies on Operation and Maintenance of Ports and Marinas

1. Management plans for non-point source (NPS) pollution and stormwater management should be integrated into the maintenance and operation of ports and marinas. Management practices should be tailored to the specific issues of each port or marina.

2. Encourage marinas to participate in their state's clean marina initiatives[15].

3. Marinas should consider using Leadership in Energy and Environmental Design (LEED)[16] certification for construction and renovation of buildings and over-water structures.

4. Adequate gas spill response plans and protocols[17] should be in place for gas production and transportation facilities. These plans should:

    a. Include the identification of sensitive fish habitat.
    b. Include methods to track the movement of spills.
    c. Ensure adequate response equipment is immediately available.
    d. Allow researchers to have timely access to impacted areas, as needed.

5. Oil-absorbing materials should be used in the bilge areas of all boats with inboard engines. These materials should be properly disposed of to limit the entry of solid and contaminated waste into surface waters.

6. Facilities should provide a containment and filtering/treatment system for vessel wash down wastewater.

7. Pump-out facilities and on-shore restrooms should be used at marinas and ports to reduce the release

[15] Most states have voluntary initiatives that encourage marinas to adopt environment-friendly business practices to reduce pollution in local waterbodies. For example: http://www.njcleanmarina.org/ and http://dnr2.maryland.gov/Boating/Pages/cleanmarina/home.aspx.
[16] For more details, see http://leed.usgbc.org/leed.html.
[17] Consistent with the US Coast Guard, US Environmental Protection Agency, Occupational Safety & Health Administration/HAZMAT, and other state or Federal requirements.

of sewage into surface waters.

8. The disposal of fish waste or other nutrient-laden material in marina or port basins should be discouraged through the use of public education, signage, and by providing alternate fish waste management practices.

9. The Council encourages the removal of unnecessary impervious surfaces surrounding port and marina facilities and maintenance of a buffer zone between the aquatic zone and upland facilities.

10. Marinas should have designated, enclosed work areas boat maintenance activities (e.g., painting, engine repair) and should provide appropriate storage, transfer, containment, and disposal facilities for harmful material (e.g., solvents, antifreeze, and paints), to prevent toxic contaminants from reaching the aquatic environment.

11. Concrete, untreated wood, or steel dock materials should be used to avoid the leaching of contaminants associated with wood preservatives.

12. The Council encourages use of anchoring techniques and mooring designs that avoid scouring the bottom habitat from anchor chains. For example, anchors that do not require chains (e.g., helical anchors) or moorings that use subsurface floats to prevent anchor chains from dragging the bottom are some designs that should be considered.

Council Policy on Liquefied Natural Gas (LNG)

Approved 12/7/2015

Policy Goal: *The Council supports practices for US energy development including LNG development and operations that will sustain the health of marine ecosystems and fishery resources while minimizing the impacts to the marine environment and fisheries.*

1. LNG facilities should utilize the best commercially available technology. Closed loop systems should be used to avoid impingement and entrainment of living marine resources and to reduce disruptions to the temperature and salinity of the aquatic environment.

2. Strategies should be implemented to diffuse heating or cooling in any effluent. Alteration of the temperature regimes of the receiving waters could cause a change in species assemblages and ecosystem function.

3. LNG facilities that use surface waters for regasification and engine cooling purposes should not be sited in areas of high biological productivity (e.g., estuaries).

4. To decrease the need for additional dredging, LNG developers should consider expanding existing LNG import and export facilities or repurposing existing industrial sites or ports which already have deep water facilities.

5. Preference should be given to the use of softer or "living" shoreline stabilization methods for construction of new onshore LNG infrastructure, which can offer an alternative form of erosion control, with less severe habitat impacts than "hard" shoreline stabilization methods (e.g., concrete bulkheads and seawalls, concrete or rock revetments).

6. LNG pipelines should not be constructed in areas with sensitive fish habitat such as shellfish beds, fish spawning and/or nursery habitat areas, submerged aquatic vegetation (SAV), or hard/structured habitat.

7. The best available technology should be utilized during pipeline installation to reduce potential impacts on the affected environment. This may include horizontal directional drilling to avoid impacts on sensitive fish habitat.

8. Some nearshore/onshore impacts can be avoided through the construction and use of offshore, deepwater LNG ports; however, the transportation of LNG from offshore terminals to onshore facilities may have other offshore impacts.

9. The siting, construction, and operation of LNG facilities should be conducted in a way that minimizes conflicts with other users groups, including recreational and commercial fisheries.

10. LNG facilities should not be placed in or adjacent to sensitive fish habitat.

11. Monitoring and leak detection systems should be installed at LNG production and transportation facilities.

12. LNG production and transportation facilities should develop and implement adequate LNG spill response plans and protocols[18]. These plans should:

    a. Include the identification of sensitive marine habitat.
    b. Include methods to track the movement of spills.
    c. Ensure adequate response equipment is immediately available.
    d. Allow researchers to have timely access to impacted areas, as needed.

[18] Consistent with the US Coast Guard, US Environmental Protection Agency, Occupational Safety & Health Administration/HAZMAT, and other state or Federal requirements.

Council Policy on Coastal Development

Approved 12/7/2015

Policy Goal: *The Council supports policies, projects, and investments which will stop and reverse the steady and ongoing deterioration of critical riverine, estuarine, and nearshore fish habitats caused by coastal development in the Mid-Atlantic.*

General Policies

1. Coastal development poses an ongoing and significant threat to the marine ecosystem and the sustainability of Mid-Atlantic fisheries.

2. Federal agencies, including the National Oceanographic and Atmospheric Administration (NOAA), Environmental Protection Agency (EPA), and Army Corps of Engineers (ACE), as well as state agencies should be aligned in their support of practices that improve water quality for both people and nature.

3. Developers and regulators should consider the cumulative impacts of development practices and projects on the environment and fisheries habitat and resources.

Policies on Water Quality (including Eutrophication, Toxic Contaminants, Ocean Acidification, and Water Physics)

Eutrophication

1. The Council supports policies, projects, and investments that reduce point and non-point sources of nutrient inputs and sediment to the aquatic environment.

2. The Council opposes land use practices and other activities that exacerbate eutrophication, and supports practices to address impervious surfaces issues which prevent rainwater infiltration and natural groundwater recharge.

3. Antiquated and improperly sited sewage treatment systems and outfalls should be upgraded and modified, and sewage should be treated to standards that are appropriate for the area.

4. Sewage treatment facilities should plan and prepare for forecasted extreme weather events. Flooding events can damage critical infrastructure like sewer and solid waste systems, especially in systems which transport both stormwater and wastewater for treatment, triggering sewage overflows that spread into local waters.

5. Practices should be employed that reduce over-reliance on septic systems that can contaminate the groundwater that feeds to rivers, estuaries, and nearshore waters.

6. Practices which result in the overuse of fertilizers or do not adequately address animal waste in agricultural practices should be avoided.

7. Wetlands and sensitive habitats which serve as depositories for a large amount of organic matter and cycling of nutrients within the ecosystem, such as tidal marshes, seagrass beds, and shellfish beds, should be protected and restored.

Toxic Contaminants

8. The Council supports practices which reduce inputs of contaminants (toxic chemicals) into water systems. Contaminants can have deleterious effects on fish that utilize estuaries or coastal habitats, and chronic exposure can lead to bioaccumulation in species and compound impacts throughout food webs.

9. The use of contaminants which can adversely affect the aquatic environment/marine biota should be below impact levels.

10. The use of antifouling biocides (e.g., aluminum, copper, chlorine compounds) should be avoided; less damaging antifouling alternatives should be implemented to avoid the leaching of these contaminants into the environment.

11. The Council supports studies to determine the impacts on fish from exposure to toxic contaminants of emerging concern (e.g., endocrine disrupting chemicals).

Aquatic Acidification

12. The Council supports policies, practices, and investments in research to address issues related to carbon dioxide emissions and associated aquatic acidification.

13. Research to understand the impact of acidification on marine ecosystems should be prioritized.

14. The Council supports practices that address eutrophication in the aquatic environment because excess nitrogen and phosphorus in coastal waters and estuaries (eutrophication) contribute to elevated carbon dioxide levels and acidification.

Water Physics

15. Many rivers and streams, wetlands, and estuaries have been degraded by the diversion of water for other uses, such as agriculture and consumption. As such, consideration should be given to restoring the natural hydrology of our rivers and streams and maintaining flow levels that feed into wetlands and estuaries, to the extent possible.

Policies on Water-Dependent Coastal Development

Approved 12/7/2015

1. Water-dependent coastal development activities, such as marinas, ports, docks, and bridges, should not be placed in sensitive benthic habitat such as shellfish beds, fish spawning and/or nursery habitat areas, submerged aquatic vegetation (SAV), or hard/structured habitat.

2. Coastal upland buffers should be preserved between buildings/infrastructure and wetlands and sand dunes to allow for the inland migration of habitats as sea levels rise.

3. Preference should be given to the use of softer or "living" shoreline stabilization methods for coastal development, which can offer an alternative form of erosion control, with less severe habitat impacts than "hard" shoreline stabilization methods (e.g., concrete bulkheads and seawalls, concrete or rock revetments).

4. Projects should consider efforts to restore, create, and enhance fishery habitat to offset adverse impacts of coastal development (e.g., use soft/living shoreline methods to provide fish nursery habitats and marsh areas; remove barriers to natural fish passage).

5. The Council supports the removal or modification of water control barriers (such as dams, culverts, and banks) which modify natural hydrology and/or restrict diadromous fish movement and passage through rivers and estuaries. The installation of new water control barriers, which may constrain fish passage or alter hydrology, should be avoided.

6. The Council supports the use of seasonal restrictions and spatial buffers on coastal development activities to limit negative impacts during fish spawning, egg development, young-of-year development, and migration periods, and to avoid secondary impacts to sensitive habitat areas.

Policies on Beach Nourishment

1. Avoid sand mining in areas containing sensitive fish habitats (e.g., spawning and feeding sites, hard bottom, cobble/gravel substrate, shellfish beds).

2. Avoid mining sand from sandy ridges, lumps, shoals, and rises that are named on maps. The naming of these is often the result of the area being an important fishing ground.

3. Existing sand borrow sites should be used to the extent possible. Mining sand from new areas introduces additional impacts.

4. Conduct beach nourishment during the winter and early spring, when productivity for benthic infauna is at a minimum.

5. Seasonal restrictions and spatial buffers on sand mining should be used to limit negative impacts during fish spawning, egg development, young-of-year development, and migration periods, and to avoid secondary impacts to sensitive habitat areas such as SAV.

6. Preserve, enhance, or create beach dune and native dune vegetation in order to provide natural beach habitat and reduce the need for nourishment.

7. Each beach nourishment activity should be treated as a new activity (i.e., subject to review and comment), including those identified under a programmatic environmental assessment or environmental impact statement.

8. Bathymetric and biological monitoring should be conducted before and after beach nourishment to assess recovery in beach borrow and nourishment areas.

9. The effect of noise from mining operations on the feeding, reproduction, and migratory behavior of marine mammals and finfish should be assessed.

10. The cost effectiveness and efficacy of investments in traditional beach nourishment projects should be evaluated and consider alternative investments such as non-structural responses and relocation of vulnerable infrastructure given projections of sea level rise and extreme weather events.

Policies on Wetland Dredging and Filling

1. Activities which disrupt overall wetland function, such as dredging and filling, should be avoided to the extent practicable.

2. Dredged material should not be placed in wetlands or other sensitive fish habitats unless the placement is specifically designed to restore or to enhance the fishery habitat and ecological function of the wetland.

3. Fishery habitat functions/services should be identified and characterized in project areas prior to any dredge and fill activities.

4. Filling materials should be tested to ensure material meets or exceeds applicable state and/or federal water quality standards.

5. Existing and/or EPA-designated disposal sites should be used for the disposal of dredged materials, unless material placement intended for habitat restoration or enhancement.