

New England Fishery Management Council Submarine Cables Policy

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Introduction

Submarine cables carry both electricity and data. These cables extend from the coastline into the Exclusive Economic Zone, sometimes crossing entire ocean basins. Placement and operation of cables can have negative impacts on marine habitats, species, and fisheries. Various state and federal agencies are involved in permitting cable projects. Potential impacts are considered during the siting and environmental review process, and in many cases can be mitigated via project design choices. The New England Fishery Management Council's (NEFMC) Submarine Cables Background Document provides more information on cable configuration and installation, past, current, and future cable projects in the New England region, the process for permitting, and the potential impacts of installation and operation on marine fishery species and their habitats. This policy pertains to cables installed in or on the seabed, and not to cables in the water column, i.e. those that might be suspended from floating offshore wind platforms.

The NEFMC's Habitat Policy ([Operations Handbook](#), page 42) recognizes that all species are dependent on the quantity and quality of their habitat, and therefore establishes that the NEFMC shall assume an active role in the protection of such habitats. As required under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) implementing regulations (CFR Part 600 Subpart J), the NEFMC designates essential fish habitat for each of the species it manages, and for some species and in some locations, identifies habitat areas of particular concern. Part 600 Subpart K of the MSA regulations detail NOAA Fisheries and Regional Fishery Management Council responsibilities to consult with federal agencies when their activities may affect essential fish habitats. Beyond habitat considerations, as a steward of the species and fisheries it manages, the NEFMC has an interest in ensuring that these species are not negatively affected by non-fishing activities occurring in the marine environment. The NEFMC also has an interest in promoting safe operation of commercial and recreational fisheries for these species. To this end, the Council provides input and guidance on the conduct of other marine activities in a way that promotes compatibility with sustainable fishing and fishing communities.

Given the NEFMC's regulatory responsibilities, interests, and expertise, the Council is committed to consulting with federal and state agencies to ensure that cable projects in New England are developed in a manner that is compatible with the protection of Council-managed species and their habitats, and with commercial and recreational fishing activities. This includes

but is not limited to providing input on cable project siting, design, and execution, based on the following list of principles and best management practices. Consultation should take an “early and often” approach, whenever possible, to communicate concerns during the design phase, thus increasing opportunities for reduction, rather than mitigation, of impacts. Given that Council-managed species and their EFH occur both nearshore and offshore, projects in various locations are of interest to the Council. Because individual cables do not occur in isolation from one another, or from other types of development, it is very important to consider the potential for cumulative effects to species under management, habitats, and fisheries when siting and designing projects. Cumulative effects analyses are the responsibility of the lead federal agency preparing the National Environmental Policy Act document, but the Council will commit to raising specific concerns for possible incorporation into those analyses.

The primary audience for this policy is the Council itself, as it engages in these consultations. Secondary audiences include NOAA Fisheries, other federal agencies, state agencies, fishermen, project developers, and other members of the public.

Specific considerations and best management practices

The remainder of this policy is organized around general, higher-level principles for project design and communication, followed by specific considerations and best management practices. The general principles encompass the Council’s major areas of concern. The lists of specific considerations are not exhaustive but provide examples of best practices. The Council recognizes that some of these recommendations are required as state and federal permit conditions.

1. General principle: The environmental characteristics of the cable corridor should be evaluated during the design phase of a cable project. To the extent possible, cable routes should avoid sensitive and important fish habitats to minimize effects on those habitats.
 - a. Route selection should consider the intersection between cable corridors and designated essential fish habitat and habitat areas of particular concern and avoid installations in areas where impacts are more than minimal or more than temporary. Developers and action agencies should document how conclusions regarding magnitude and duration of impacts were reached.
 - b. Route selection should consider interactions with fishery management areas including those designated for habitat and spawning protection and consider whether installation compromises achievement of these conservation objectives, with a particular focus on maintaining function of rocky habitats.
 - c. Sensitive habitats to be avoided include marsh, seagrass, hard substrates, and coral and sponge habitats. Surveys may be required to determine exactly where these habitats occur. Many deep-sea coral species are fragile, long-lived, and slow-growing, such that recovery from impacts will be very slow.

- d. Where avoidance is not possible, impacts to sensitive habitats should be mitigated.
 - e. Route selection should avoid areas with contaminated sediments to minimize the release of these contaminants into the water.
 - f. A cable burial route assessment is recommended for each installation (see principle 2 specific to burial vs. surface lay, below).
2. General principle: Cable burial is preferable to laying cable on the seabed. Sufficient depth of burial, as determined by a cable burial risk assessment, is important to minimize the risk of exposure as well as fishing gear interactions and emergency, accidental or intentional anchoring. If cables must be laid on the seabed due to unavoidable intersection of the route with hard bottom or existing cables, ensure that sufficient and appropriate cable protection materials are used.
- a. If a route crosses an existing, inactive cable, seek removal of a section of the inactive cable whenever possible so that the new cable can be buried to appropriate depths.
 - b. Cable protection materials should be selected based on their habitat value, mimicking adjacent habitats when feasible. For example, using natural rounded stone in gravel habitats, or sandbags in sand habitats. Material selection should also consider effectiveness in reducing the potential for interactions with fishing gear, consulting with mobile gear fishermen to assess suitability of specific materials. The Council recognizes that other materials may have advantages such as a smaller footprint, or the ability to be moved as a unit and repositioned.
 - c. The Council can share information and expertise on the depths to which fishing occurs in the region, and the locations of long-term fishery closures. Together these can inform decisions about whether burial or surface lay are most appropriate in a particular location and depth.
 - d. In water depths where burial is not needed to avoid fishing gear interactions, avoid surface lays through deep-sea coral and sponge habitats and other sensitive ecosystems.
 - e. In some locations with complex topography where the cable cannot lay flat on the seafloor free spans may occur. These could cause incision of rocks and removal of attached organisms, thereby degrading deep-sea habitats. The Council recommends routing the cable in a way that precludes free spans.
3. General principle: To the greatest extent possible, cable routes should avoid areas where mobile bottom tending fishing gears are heavily used to reduce any chances of interactions between cables or cable protection materials and fishing gear.

4. General principle: Once a route is identified that will minimally intersect with sensitive habitats, use installation techniques that reduce environmental and fisheries impacts.
 - a. At the land/water interface, consider horizontal directional drilling instead of trenching when possible to avoid disturbing the seabed surface. Ensure that the substrate is compatible with directional drilling in areas where these techniques are planned, so that the drill does not need to surface during installation.
 - b. Avoid installation work during times of year when noise or physical disturbance could have a particular impact on marine species and habitats, for example during periods of spawning activity, egg deposition, or juvenile settlement to the seabed.
 - c. Most fisheries demonstrate spatial and temporal variation in the level of activities, in part due to seasonal movements of target species. Avoid installation during times of year when fishing activity might be displaced.
 - d. Consider via suspended sediment modeling or other analyses the potential for release of sediments and how this relates to the timing of construction and the presence of sensitive life stages. Monitoring and stop work thresholds may be appropriate to mitigate effects.
5. General principle: Cable routes should be coordinated, where possible, to minimize the total footprint of cables in the marine environment. This could include installing multiple cables adjacent to one another within the same corridor.
6. General principle: Cable projects should be designed to minimize operational impacts including heat and electromagnetic fields which can affect marine species.
 - a. Electrical transmission cables should be configured to reduce magnetic fields.
 - b. The selection of a target burial depth should consider the implications of this choice on expected temperature increases in the surrounding seabed, including on the seabed surface, which will be related to sediment characteristics and other factors.
7. General principle: Cable corridors should be monitored at intervals following installation, both to assess the condition of seafloor habitats relative to pre-installation conditions, and to ensure that the cable installation remains intact. The Council recognizes that many aspects of cable monitoring are done continuously and remotely.
 - a. Conduct post-installation monitoring of the corridor, particularly in areas where cable corridors intersect with sensitive habitats.
 - b. Monitoring should occur at intervals to assess changes to the environment around the cable over time.
 - c. Monitoring should be sufficient for evaluating biological and habitat effects.
 - d. Monitoring should identify whether conditions after installation may be preventing the recovery of benthic habitats.

- e. Monitoring should measure electric fields, magnetic fields, and temperature along the cable, and compare to estimated values.
 - f. Monitoring should occur more frequently in years following installation, while monitoring intervals may be extended further out from installation.
 - g. It is important to check for integrity of the system (continued cable burial, movement of cable protection materials such as mattresses) following major storm events.
 - h. Monitoring data should be made available to the public whenever possible, to facilitate mitigation and adaptive management.
 - i. If issues arise (e.g. a cable becomes unburied, or negative environmental effects are occurring), cable owners should mitigate the issue as quickly as possible.
8. General principle: Decommissioning should be planned for as much as possible before installation and should consider whether removal or decommissioning in place is likely to result in fewer negative environmental effects.
- a. Prior to installation, developers should plan for and document sufficient funding to remove the cable after the project is finished. Lack of adequate funding to remove the cable is not sufficient justification to avoid cable removal.
 - b. In some cases, the impacts of cable removal will be greater than leaving it in place. Some discussion of whether removal is preferred, or if it is better to leave cables in place, depending on the conditions, should occur during installation, and additional evaluation should occur as the cable nears the end of its serviceable life.
 - c. Survey the corridor prior to removal; conditions may indicate that removal or decommissioning in situ will have fewer impacts or may indicate that removal during a certain season will have fewer effects.
9. General principle: Clear and ongoing communication between all parties (Council, developer, regulating and consulting agencies, public) should be emphasized to minimize environmental and human impacts of the project.
- a. Provide information about the project to the public (including the Council and its stakeholders) during the project design phase to allow for early input and mitigation of impacts to fish habitats and fisheries.
 - b. Describe how project design choices avoid or mitigate impacts on fish, fish habitats, and fisheries.
 - c. Develop and implement a plan to minimize the loss of fishing gear during surveys and installation.
 - d. Provide advisories about at-sea construction, survey, and maintenance operations to mariners to improve safety and reduce space use conflicts.

- e. Advertise and chart locations of cables, including locations where mattresses or other cable protection materials were used, to help mariners including fishermen avoid interactions with cables.

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