

NOAA Fisheries Greater Atlantic Regional Fisheries Office Essential Fish Habitat (EFH) Assessment & Fish and Wildlife Coordination Act (FWCA) Worksheet

This worksheet is your essential fish habitat (EFH) assessment. It provides us with the information necessary to assess the effects of your action on EFH under the Magnuson Stevens Fishery Conservation and Management Act and on NOAA trust resources under the Fish and Wildlife Coordination Act (FWCA). Consultation is not required if:

1. there is no adverse effect on EFH or NOAA trust resources (see page 10 for more info).
2. no EFH is designated and no trust resources may be present at the project site.

Instructions

Federal agencies or their non-federal designated lead agency should email the completed worksheet and necessary attachments to nmfs.gar.efh.consultation@noaa.gov. Include the public notice (if applicable) or project application and project plans showing:

- location map of the project site with area of impact.
- existing and proposed conditions.
- all waters of the U.S. on the project site with mean low water (MLW), mean high water (MHW), high tide line (HTL), and water depths clearly marked.
- sensitive habitats mapped, including special aquatic sites (submerged aquatic vegetation, saltmarsh, mudflats, riffles and pools, coral reefs, and sanctuaries and refuges), hard bottom or natural rocky habitat areas, and shellfish beds.
- site photographs, if available.

We will provide our EFH conservation recommendations and recommendations under the FWCA, as appropriate, within 30 days of receipt of a complete EFH assessment (60 days if an expanded consultation is necessary). Please submit complete information to minimize delays in completing the consultation.

This worksheet provides us with the information required¹ in an EFH assessment:

1. A description of the proposed action.
2. An analysis of the potential adverse effects on EFH and the federally managed species.
3. The federal agency's conclusions regarding the effects of the action on EFH.
4. Proposed mitigation, if applicable.

Your analysis **should focus on impacts that reduce the quality and/or quantity of the habitat or result in conversion to a different habitat type** for all life stages of species with designated EFH within the action area.

Use the information on the [HCD website](#) and [NOAA's EFH Mapper](#) to complete this worksheet. If you have questions, please contact the appropriate [HCD staff member](#) to assist you.

¹ The EFH consultation process is guided by the requirements of our EFH regulation at 50 CFR 600.905.

	Habitat Type	Total impact (sq ft/acres)	Impacts are temporary	Restored to pre-existing conditions	Permanent conversion of all or part of habitat
	Rocky/hard bottom ⁴ :				
	Sand				
	Shellfish beds or oyster reefs				
	Mudflats				
	Submerged aquatic vegetation (SAV) ⁵ , macroalgae, epifauna				
	Diadromous fish (migratory or spawning habitat)				

Indicate type(s) of rocky/hard bottom habitat (pebble, cobble, boulder, bedrock outcrop/ledge) and species of SAV:

Project Effects

Select all that apply	Project Type/Category
	Hatchery or Aquaculture
	Agriculture
	Forestry
	Military (e.g., acoustic testing, training exercises)
	Mining (e.g., sand, gravel)
	Restoration or fish/wildlife enhancement (e.g., fish passage, wetlands, beach renourishment, mitigation bank/ILF creation)

⁴ Indicate type(s). The type(s) of rocky habitat will help you determine if the area is cod HAPC.

⁵ Indicate species. Provide a copy of the SAV report and survey conducted at the site, if applicable.

Select all that apply	Project Type/Category
	Infrastructure/transportation (e.g., culvert construction, bridge repair, highway, port)
	Energy development/use
	Water quality (e.g., TMDL, wastewater, sediment remediation)
	Dredging/excavation and disposal
	Piers, ramps, floats, and other structures
	Bank/shoreline stabilization (e.g., living shoreline, groin, breakwater, bulkhead)
	Survey (e.g., geotechnical, geophysical, habitat, fisheries)
	Other

Select all that apply	Potential Stressors Caused by the Activity	Select all that apply and if temporary or permanent		Habitat alterations caused by the activity
		Temp	Perm	
	Underwater noise			
	Water quality/turbidity/contaminant release			Water depth change
	Vessel traffic/barge grounding			Tidal flow change
	Impingement/entrainment ⁶			Fill
	Prevent fish passage/spawning			Habitat type conversion
	Benthic community disturbance			Other:
	Impacts to prey species			Other:

⁶ Entrainment is the voluntary or involuntary movement of aquatic organisms from a water body into a surface diversion or through, under, or around screens and results in the loss of the organisms from the population. Impingement is the involuntary contact and entrapment of aquatic organisms on the surface of intake screens caused when the approach velocity exceeds the swimming capability of the organism.

Details: project impacts and mitigation

The level of detail that you provide should be commensurate with the magnitude of impacts associated with the proposed project. Attach supplemental information if necessary.

Describe how the project would impact each of the habitat types selected above. Include temporary and permanent impact descriptions and direct and indirect impacts.

What specific measures will be used to avoid impacts, including project design, turbidity controls, acoustic controls, and time of year restrictions? If impacts cannot be avoided, why not?

What specific measures will be used to minimize impacts?

Is compensatory mitigation proposed?

Yes

No

If no, why not? If yes, describe plans for mitigation and how this will offset impacts to EFH. Include a conceptual compensatory mitigation and monitoring plan, if applicable.

Federal Action Agency's EFH determination (select one)	
	There is no adverse effect ⁷ on EFH or EFH is not designated at the project site. EFH Consultation is not required. This is a FWCA-only request.
	The adverse effect ⁷ on EFH is not substantial. This means that the adverse effects are no more than minimal, temporary, or can be alleviated with minor project modifications or conservation recommendations. This is a request for an abbreviated EFH consultation.
	The adverse effect ⁷ on EFH is substantial. This is a request for an expanded EFH consultation. We will provide more detailed information, including an alternatives analysis and NEPA document, if applicable.

EFH and HAPC designations⁸

Use the [EFH mapper](#) to determine if EFH may be present in the project area and enter all species and lifestages that have designated EFH. Optionally, you may review the EFH text descriptions linked to each species in the EFH mapper and use them to determine if the described habitat is present. We recommend this for larger projects to help you determine what your impacts are.

Species	EFH is designated/mapped for:				Habitat present based on text description (optional)
	EFH: eggs	EFH: larvae	EFH: juvenile	EFH: adults/spawning adults	

⁷ An **adverse effect** is any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

⁸ Within the Greater Atlantic Region, EFH has been designated by the New England, Mid-Atlantic, and South Atlantic Fisheries Management Councils and NOAA Fisheries.

HAPCs

Select all that are in your action area.

	Summer flounder: SAV ⁹		Alvin & Atlantis Canyons
	Sandbar shark		Baltimore Canyon
	Sand Tiger Shark (Delaware Bay)		Bear Seamount
	Sand Tiger Shark (Plymouth-Duxbury-Kingston Bay)		Heezen Canyon
	Inshore 20m Juvenile Cod		Hudson Canyon
	Great South Channel Juvenile Cod		Hydrographer Canyon
	Northern Edge Juvenile Cod		Jeffreys & Stellwagen
	Lydonia Canyon		Lydonia, Gilbert & Oceanographer Canyons
	Norfolk Canyon (Mid-Atlantic)		Norfolk Canyon (New England)
	Oceanographer Canyon		Retriever Seamount
	Veatch Canyon (Mid-Atlantic)		Toms, Middle Toms & Hendrickson Canyons
	Veatch Canyon (New England)		Washington Canyon
	Cashes Ledge		Wilmington Canyon

⁹ Summer flounder HAPC is defined as all native species of macroalgae, seagrasses, and freshwater and tidal macrophytes in any size bed, as well as loose aggregations, within adult and juvenile summer flounder EFH. In locations where native species have been eliminated from an area, then exotic species are included. Use local information to determine the locations of HAPC.

More information

The [Magnuson-Stevens Fishery Conservation and Management Act \(MSA\)](#) mandates that federal agencies conduct an [essential fish habitat \(EFH\) consultation](#) with NOAA Fisheries on any actions they authorize, fund, or undertake that may adversely affect EFH. An **adverse effect** is any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

We designed this worksheet to help you to prepare EFH assessments. It is important to remember that an adverse effect determination is a trigger to consult with us. It does not mean that a project cannot proceed as proposed, or that project modifications are necessary. It means that the effects of the proposed action on EFH must be evaluated to determine if there are ways to avoid, minimize, or offset adverse effects.

This worksheet should be used as your EFH assessment or as a guide to develop your EFH assessment. At a minimum, you should include all the information required to complete this worksheet in your EFH assessment. The level of detail that you provide should be commensurate with the magnitude of impacts associated with the proposed project. If your answers in the worksheet and supplemental information you attach do not fully evaluate the adverse effects to EFH, we may request additional information to complete the consultation.

You may need to prepare an expanded EFH assessment for more complex projects to fully characterize the effects of the project and the avoidance and minimization of impacts to EFH. While the EFH assessment worksheet may be used for larger projects, the format may not be sufficient to incorporate the extent of detail required, and a separate EFH assessment may be developed. However, regardless of format, you should include an analysis as outlined in this worksheet for an expanded EFH assessment, along with any additional necessary information. This additional information includes:

- the results of on-site inspections to evaluate the habitat and site-specific effects.
- the views of recognized experts on the habitat or the species that may be affected.
- a review of pertinent literature and related information.
- an analysis of alternatives that could avoid or minimize the adverse effects on EFH.

Please contact our Greater Atlantic Regional Fisheries Office, [Protected Resources Division](#) regarding potential impacts to marine mammals or threatened and endangered species.

Useful Links

[National Wetland Inventory Maps](https://www.fws.gov/wetlands/)

<https://www.fws.gov/wetlands/>

[EPA's National Estuary Program \(NEP\)](https://www.epa.gov/nep/local-estuary-programs)

<https://www.epa.gov/nep/local-estuary-programs>

[Northeast Regional Ocean Council \(NROC\) Data Portal](https://www.northeastocean.org/)

<https://www.northeastocean.org/>

Mid-Atlantic Regional Council on the Ocean (MARCO) Data Portal

<http://portal.midatlanticocean.org/>

Resources by State

Maine

[Maine Office of GIS Data Catalog](https://geolibrary-maine.opendata.arcgis.com/datasets#data)

<https://geolibrary-maine.opendata.arcgis.com/datasets#data>

[Town shellfish information including shellfish conservation area maps](https://www.maine.gov/dmr/shellfish-sanitation-management/programs/municipal/ordinances/towninfo.html)

<https://www.maine.gov/dmr/shellfish-sanitation-management/programs/municipal/ordinances/towninfo.html>

[State of Maine Shellfish Sanitation and Management](https://www.maine.gov/dmr/shellfish-sanitation-management/index.html)

<https://www.maine.gov/dmr/shellfish-sanitation-management/index.html>

[Eelgrass maps](https://www.maine.gov/dmr/science-research/species/eelgrass/index.html)

<https://www.maine.gov/dmr/science-research/species/eelgrass/index.html>

[Casco Bay Estuary Partnership](https://www.cascobayestuary.org/)

<https://www.cascobayestuary.org/>

[Maine GIS Stream Habitat Viewer](https://www.arcgis.com/home/item.html?id=5869c2d20f0b4c3a9742bdd8abef42cb)

<https://www.arcgis.com/home/item.html?id=5869c2d20f0b4c3a9742bdd8abef42cb>

New Hampshire

[NH's Statewide GIS Clearinghouse, NH GRANIT](http://www.granit.unh.edu/)

<http://www.granit.unh.edu/>

[NH Coastal Viewer](http://www.granit.unh.edu/nhcoastalviewer/)

<http://www.granit.unh.edu/nhcoastalviewer/>

[State of NH Shellfish Program](https://www.des.nh.gov/organization/divisions/water/wmb/shellfish/)

<https://www.des.nh.gov/organization/divisions/water/wmb/shellfish/>

Massachusetts

[MA Shellfish Sanitation and Management Program](https://www.mass.gov/shellfish-sanitation-and-management)

<https://www.mass.gov/shellfish-sanitation-and-management>

[MassGIS Data, Including Eelgrass Maps](http://maps.massgis.state.ma.us/map_ol/oliver.php)

http://maps.massgis.state.ma.us/map_ol/oliver.php

[MA DMF Recommended TOY Restrictions Document](https://www.mass.gov/files/documents/2016/08/ry/tr-47.pdf)

<https://www.mass.gov/files/documents/2016/08/ry/tr-47.pdf>

[Massachusetts Bays National Estuary Program](https://www.mass.gov/orgs/massachusetts-bays-national-estuary-program)

<https://www.mass.gov/orgs/massachusetts-bays-national-estuary-program>

[Buzzards Bay National Estuary Program](http://buzzardsbay.org/)

<http://buzzardsbay.org/>

[Massachusetts Division of Marine Fisheries](http://www.mass.gov/dmfs)

<https://www.mass.gov/orgs/division-of-marine-fisheries>

[Massachusetts Office of Coastal Zone Management](#)

<https://www.mass.gov/orgs/massachusetts-office-of-coastal-zone-management>

Rhode Island

[RI Shellfish and Aquaculture](#)

<http://www.dem.ri.gov/programs/fish-wildlife/marine-fisheries/shellfish-aquaculture.php>

[RI Shellfish Management Plan](#)

<http://www.shellfishri.com/>

Eelgrass Maps

<http://edc.maps.arcgis.com/apps/View/index.html?appid=db52bb689c1e44259c06e11fd24895f8>

[RI GIS Data](#)

<http://ridemgis.maps.arcgis.com/apps/webappviewer/index.html?id=87e104c8adb449eb9f905e5f18020de5>

[Narragansett Bay Estuary Program](#)

<http://nbep.org/>

[Rhode Island Division of Marine Fisheries](#)

<http://www.dem.ri.gov/programs/fish-wildlife/marine-fisheries/index.php>

[Rhode Island Coastal Resources Management Council](#)

<http://www.crmc.ri.gov/>

Connecticut

[CT Bureau of Aquaculture](#)

<https://www.ct.gov/doag/cwp/view.asp?a=3768&q=451508&doagNav=>

[CT GIS Resources](#)

https://www.ct.gov/deep/cwp/view.asp?a=2698&q=323342&deepNav_GID=1707

[Natural Shellfish Beds in CT](#)

<https://cteco.uconn.edu/viewer/index.html?viewer=aquaculture>

[Eelgrass Maps](#)

https://www.fws.gov/northeast/ecologicalservices/pdf/wetlands/2012_CT_Eelgrass_Final_Report_11_26_2013.pdf

[Long Island Sound Study](#)

<http://longislandsoundstudy.net/>

[CT GIS Resources](#)

<http://cteco.maps.arcgis.com/home/index.html>

[CT DEEP Office of Long Island Sound Programs and Fisheries](#)

<https://www.ct.gov/deep/site/default.asp>

[CT River Watershed Council](#)

<https://www.ctriver.org/>

New York

[Eelgrass Report](#)

http://www.dec.ny.gov/docs/fish_marine_pdf/finalseagrassreport.pdf

[Peconic Estuary Program](#)

<https://www.peconicestuary.org/>

[NY/NJ Harbor Estuary](#)

<https://www.hudsonriver.org/estuary-program>

New York GIS Clearinghouse

<https://gis.ny.gov/>

New Jersey

[Submerged Aquatic Vegetation Mapping](http://www.crssa.rutgers.edu/projects/sav/)

<http://www.crssa.rutgers.edu/projects/sav/>

[Barnegat Bay Partnership](https://www.barnegatbaypartnership.org/)

<https://www.barnegatbaypartnership.org/>

[NJ GeoWeb](https://www.nj.gov/dep/gis/geoweb splash.htm)

<https://www.nj.gov/dep/gis/geoweb splash.htm>

[NJ DEP Shellfish Maps](https://www.nj.gov/dep/landuse/shellfish.html)

<https://www.nj.gov/dep/landuse/shellfish.html>

Pennsylvania

[Delaware River Management Plan](https://www.fishandboat.com/Fish/Fisheries/DelawareRiver/Documents/delaware_river_plan_exec_draft.pdf)

https://www.fishandboat.com/Fish/Fisheries/DelawareRiver/Documents/delaware_river_plan_exec_draft.pdf

[PA DEP Coastal Resources Management Program](https://www.dep.pa.gov/Business/Water/Compacts%20and%20Commissions/Coastal%20Resources%20Management%20Program/Pages/default.aspx)

<https://www.dep.pa.gov/Business/Water/Compacts%20and%20Commissions/Coastal%20Resources%20Management%20Program/Pages/default.aspx>

[PA DEP GIS Mapping Tools](https://www.dep.pa.gov/DataandTools/Pages/GIS.aspx)

<https://www.dep.pa.gov/DataandTools/Pages/GIS.aspx>

Delaware

[Partnership for the Delaware Estuary](http://www.delawareestuary.org/)

<http://www.delawareestuary.org/>

[Center for Delaware Inland Bays](http://www.inlandbays.org/)

<http://www.inlandbays.org/>

[Delaware FirstMap](http://delaware.maps.arcgis.com/home/index.html)

<http://delaware.maps.arcgis.com/home/index.html>

Maryland

[Submerged Aquatic Vegetation Mapping](http://web.vims.edu/bio/sav/)

<http://web.vims.edu/bio/sav/>

[MERLIN](http://dnrweb.dnr.state.md.us/MERLIN/)

<http://dnrweb.dnr.state.md.us/MERLIN/>

[Maryland Coastal Bays Program](https://mdcoastalbays.org/)

<https://mdcoastalbays.org/>

Virginia

[Submerged Aquatic Vegetation mapping](http://www.mrc.virginia.gov/regulations/Guidance_for_SAV_beds_and_restoration_final_approved_by_Commission_7-22-17.pdf)

http://www.mrc.virginia.gov/regulations/Guidance_for_SAV_beds_and_restoration_final_approved_by_Commission_7-22-17.pdf

[VDGIF Time of Year Restrictions \(TOYR\) and Other Guidance](https://www.dgif.virginia.gov/wp-content/uploads/VDGIF-Time-of-Year-Restrictions-Table.pdf)

<https://www.dgif.virginia.gov/wp-content/uploads/VDGIF-Time-of-Year-Restrictions-Table.pdf>