

## **Guidance for Carrying Out Endangered Species Act (ESA) Section 7 Consultations with NOAA Fisheries Greater Atlantic Regional Fisheries Office**

This guidance is intended to help agencies carry out ESA Section 7 consultations with GARFO in a more effective, timely, and efficient way. It focuses on general consultation principles and best management practices to minimize impacts to listed species with the goal of allowing agencies to fulfill their agency missions while also protecting listed species and critical habitat. This document is divided into three sections. Part 1 provides basic information on NOAA Fisheries listed species and critical habitat. Part 2 provides guidance to help determine when a consultation is necessary and, when it is, what information is necessary to provide to NOAA Fisheries. We also provide information on the consultation process and things to consider when assessing the effects of an activity on listed species and critical habitat. Where possible we identify thresholds of concern. Part 3 includes a list of best management practices that can be implemented to avoid or minimize impacts to listed species. This guidance focuses on informal consultations that end with a Letter of Concurrence from NOAA Fisheries regarding actions that are not likely to adversely affect listed species and critical habitat. While information is provided on the formal consultation process, those sections are brief. If you think that an activity may require formal consultation, we recommend you get in touch with NOAA Fisheries as soon as possible to discuss information needs and consultation procedures.

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## Part 1 - Overview of NOAA Fisheries ESA Listed Species and Critical Habitat

The ESA provides protection to species listed as threatened and endangered. Some species are listed as one unit throughout their range (e.g., shortnose sturgeon) and some species are listed as “distinct population segments” (DPSs) and each of those DPSs is treated as a separate species (e.g. Atlantic sturgeon). In most cases, once we list a species as threatened or endangered we also need to designate critical habitat. A brief overview of listed species under NOAA Fisheries jurisdiction and their designated critical habitat is provided below. For more detailed information, go to [Species and Critical Habitat](#).

### Fish

Common Name	Scientific Name	Distinct Population Segment (DPS) Status	Critical Habitat in NE/MA?
<a href="#">Atlantic Salmon</a>	<i>Salmo salar</i>	Gulf of Maine - Endangered	<a href="#">Yes</a>
<a href="#">Atlantic Sturgeon</a>	<i>Acipenser oxyrinchus oxyrinchus</i>	Gulf of Maine - Threatened New York Bight - Endangered Chesapeake Bay - Endangered Carolina - Endangered South Atlantic - Endangered	<a href="#">Yes</a>
<a href="#">Shortnose Sturgeon</a>	<i>Acipenser brevirostrum</i>	Endangered	No
<a href="#">Giant Manta Ray</a>	( <i>Manta birostris</i> )	Threatened	No
<a href="#">Oceanic Whitetip Shark</a>	( <i>Carcharhinus longimanus</i> )	Threatened	No

### Whales

Common Name	Scientific Name	Status	Critical Habitat in NE/MA?
<a href="#">Blue Whale</a>	<i>Balaenoptera musculus</i>	Endangered	No
<a href="#">Fin Whale</a>	<i>Balaenoptera physalus</i>	Endangered	No
<a href="#">North Atlantic Right Whale</a>	<i>Eubalaena glacialis</i>	Endangered	<a href="#">Yes</a>
<a href="#">Sei Whale</a>	<i>Balaenoptera borealis</i>	Endangered	No

Common Name	Scientific Name	Status	Critical Habitat in NE/MA?
<a href="#">Sperm Whale</a>	<i>Physeter macrocephalus</i>	Endangered	No

## Sea Turtles

Common Name	Scientific Name	Distinct Population Segment (DPS) Status	Critical Habitat in NE/MA?
<a href="#">Green Sea Turtle</a>	<i>Chelonia mydas</i>	North Atlantic - Threatened	No
<a href="#">Hawksbill Sea Turtle</a>	<i>Eretmochelys imbricata</i>	Endangered	No
<a href="#">Kemp's Ridley Sea Turtle</a>	<i>Lepidochelys kempii</i>	Endangered	No
<a href="#">Leatherback Sea Turtle</a>	<i>Dermochelys coriacea</i>	Endangered	No
<a href="#">Loggerhead Sea Turtle</a>	<i>Caretta caretta</i>	Northwest Atlantic Ocean - Threatened	<a href="#">Yes</a>

## Part 2 - Consultation Guidance

### What is a Section 7 Consultation?

Section 7(a)(2) of the ESA requires each Federal agency to consult with NOAA Fisheries and USFWS to ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of critical habitat.

Consultation is used to capture all of the discussions you have with NOAA Fisheries about the effects of a project on listed species and critical habitat. It starts the Federal agency making a determination on what the effects of the proposed project will have on listed species and critical habitat. It will, then, often end with NOAA Fisheries issuing their determination on the effects of the proposed action on listed species and critical habitat. This determination will sometimes take the form of a concurrence with your determination that the action may affect but is not likely to adversely affect (NLAA) listed species and critical habitat (informal consultation). If you determine that your project is likely to adversely affect (LAA) listed species or we disagree with your NLAA determination, then we will enter into a formal consultation. A formal consultation concludes with us

issuing a biological opinion as to whether the proposed action is likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat (formal consultation). In addition to informal and formal consultation, there is a “pre-consultation” phase we refer to as technical assistance.

### ***Technical Assistance***

Technical assistance is an optional, but recommended, process designed to identify and minimize potential conflicts between proposed actions and listed species and any critical habitat. It is requested once you have a proposed project and project location, but before you have determined that the project may affect listed species. A request for technical assistance can be submitted by the action agency undertaking a proposed federal action, an applicant, or a representative of either. It should include a written request (by letter or email) for a list of any listed or proposed to be listed species and designated or proposed critical habitat that may be present in the action area with a description of the proposed project, project location, and a description of the habitat that will be impacted. We will respond by email or letter providing information on any listed species and critical habitat that may be affected by the proposed action and recommended measures that could avoid or minimize those impacts. This can help you and/or the applicant determine if section 7 consultation will be necessary and is particularly helpful for large scale projects.

You can also use our Section 7 Mapper that is located on our [Species and Critical Habitat](#) website to determine which species and critical habitat are present in your action area.

### ***Informal Consultation:***

Informal consultation is requested once you have determined that a proposed project may affect listed species. Informal consultation includes a consultation in which the action agency determines that an action may affect, but is not likely to adversely affect listed species or critical habitat. A “May Affect, but Not Likely to Adversely Affect” (NLAA) determination is based on a determination that effects are insignificant, extremely unlikely, or wholly beneficial as those terms are defined in the FWS-NOAA Fisheries Joint Section 7 Consultation Handbook.

- Insignificant effects - relate to the magnitude of the impact: the effects cannot be meaningfully detected, measured, or evaluated, and should never reach the scale where “take” occurs.
- Extremely unlikely effects - relate to the likelihood of the impact: the effects are extremely unlikely to occur.
- Beneficial effects - positive effects without any adverse effects.

You can start the informal consultation process by sending us a letter requesting an informal consultation. When you request for consultation, you are also requesting for concurrence on your determination. The request must describe the proposed action, including any measures intended to avoid, minimize, or offset effects of the action; state your determinations that the effects on ESA listed species and/or critical habitat are expected to be extremely unlikely, insignificant (so small they cannot be meaningfully measured, detected or evaluated), or wholly beneficial (ALL effects benefit the species and/or critical habitat); and your determination that the proposed project “may affect but is not likely to adversely affect” any listed species and/or critical habitat. Your analysis should discuss not only negative effects of the proposed action, but also any positive effects from measures that are part of the proposed action and avoid or minimize effects to listed species and/or

critical habitat. However, the analysis is not a “net effect” analysis; all positive and negative effects must be analyzed separately, even if positive effects ultimately outweigh negative effects. During the informal consultation, we will assist you in determining whether formal consultation or a conference is required with the development of measures to further avoid and minimize effects, if applicable. If it is determined that a formal consultation is not needed and we agree with your NLAA determination and the underlying basis, we will send you a Letter of Concurrence (LOC) that completes informal consultation. We cannot make a “conditional” determination (e.g., the proposed action is “not likely to adversely affect” if you do X, Y, and Z).

Additional writing resources including a template and sample letters are available on our [Technical Guidance](#) webpage.

### ***Formal Consultation:***

Formal consultation is required if an action is “likely to adversely affect” listed species or critical habitat. An action is “likely to adversely affect” listed species or critical habitat if any adverse effect to listed species or critical habitat is likely to occur as a consequence (see definition below) that is caused by the proposed action or the consequences of other activities that are caused by the proposed action and are reasonably certain to occur. In the event the overall effect of the proposed action is beneficial, but is also likely to cause some adverse effects, the proposed action meets the “is likely to adversely affect” threshold, and formal consultation is required. The “take” of a listed species is an adverse effect. It is defined in section 3 of the ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” If “take” is anticipated, formal consultation is always required.

Formal consultation concludes with issuance of a Biological Opinion. A Biological Opinion analyzes the likely effects of the action in the context of the status of the species and environmental baseline over the period during which all consequences of the action will be experienced. In the Opinion, we ultimately determine whether the action agency has ensured its proposed action is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. If a proposed action *is likely* to jeopardize the continued existence of listed species or *is likely* to result in the destruction or adverse modification of critical habitat, then we will recommend Reasonable and Prudent Alternatives to the proposed action to ensure that it is *not* likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

- To “jeopardize the continued existence of a listed species” means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR §402.02).
- The “destruction or adverse modification of critical habitat” means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species (50 CFR §402.02).

### **When should section 7 consultation happen?**

Consultation should be initiated BEFORE you authorize, fund, or carry out the activity, but AFTER you have determined that the proposed action “may affect” listed species and/or critical habitat. To make that determination, you would need a description of the proposed action and an

analysis of its effects. The information needed to initiate consultation is outlined in the implementation regulations 50 CFR section 402.14. Technical assistance can happen at any point in the planning process - the earlier, the better. While providing technical assistance, or during informal or formal consultation, NOAA Fisheries may recommend modifications to the proposed action to avoid and minimize effects to listed species and critical habitat. Therefore, it is most efficient to begin consultation before it becomes difficult to modify the proposed action.

### **How do I know if I need a section 7 consultation?**

Consultation is required when you are proposing to authorize, fund, or carry out an activity that may affect a listed species or critical habitat. You need a consultation if listed species and/or critical habitat may be present in the action area (the area directly or indirectly affected by the project), and stressors resulting from the project may affect listed species and/or critical habitat.

1. Determine if listed species occur in the action area
  - a. Define the action area: *all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.* To establish the Action Area, consider the project footprint and the area beyond it that may experience all consequences that would not occur but for the action and are reasonably certain to occur including the consequences of other activities that are caused by the proposed action.

To establish the action area for a dredging project to support the construction of a new marina, for example, consider not only where the dredging will take place, but also where structures will be removed or installed; the disposal area; transit routes to the dredge site and to disposal area; extent of sediment/turbidity plume during dredging, disposal and pile driving; how far noise travels during pile driving; the foot print of the new marina, and the areas affected by operation of the new marina (which would be considered as a consequence of another activity that is caused by the dredging, even if the action agency has no authority over the marina).
  - b. Our species presence mapper is available on the [Species and Critical Habitat](#) website as well as guidance provided by NOAA Fisheries to determine if listed species may occur in the action area during the time when all consequences of the action will be experienced, including after the action is completed.
  - c. If listed species do not occur in the action area when the effects of the activity will be experienced, you can conclude “no effect” (see below for explanation of “no effect” determinations)
  - d. If listed species may occur in the action area when the effects of the activity will be experienced, go on to step 2.
2. Determine if the proposed activity “may affect” listed species
  - a. Identify the stressors that will be produced by the activity (e.g., pollutants, noise, increased turbidity, vessel traffic, interactions with dredge equipment)
  - b. Consider all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action (50 CFR 402.02)
  - c. Will the action produce potential stressors that could impact individuals or

- their environment?
- d. If yes, consider whether there are avoidance or minimization measures in place that would eliminate the potential for exposure (e.g., silt curtains, cofferdams)
  - e. If yes to d, is it likely that listed species may respond to that exposure? (e.g., will they avoid the area, will their ability to feed be affected?)
  - f. If yes to d, the proposed action “may affect” listed species; go on to question 3. If no to c, d, or e, you can conclude “no effect” and consultation is not required. All determinations should include an effects analysis to support your determination.
3. For each stressor, determine if the effects to listed species will be insignificant, extremely unlikely, or wholly beneficial
- a. Effects are extremely unlikely if: (i) The activity produces stressors that could affect individuals, but the probability of exposing listed individuals to those stressors is so small that it would be extremely unlikely that exposure (and effects) will occur **OR** (ii) the activity produces stressors that could affect individuals and individuals are likely to be exposed to those stressors, but the probability of those individuals responding to the exposure is so remote that it is extremely unlikely to expect that response to occur.
  - b. Effects are insignificant if: the activity produces stressors that individuals are likely to be exposed and respond to, but the responses are so small they cannot be meaningfully detected, measured, or evaluated (must not result in any measurable reduction in fitness or rise to the level of “take”)
  - c. Effects are wholly beneficial if: listed species are expected to respond positively to the effects of the action with no adverse effects to the species.
4. If the effects will be wholly beneficial, insignificant, or extremely unlikely, you should request informal consultation. If they will not be wholly beneficial, insignificant, or extremely unlikely, you may need formal consultation.

### **What does “no effect” mean?**

No effect means there will be no consequences to listed species or critical habitat from the proposed action. In order for an Action Agency to determine if any activities will have “no effect” on listed species and critical habitat in the action area, you must be able to make the determination for ALL species and critical habitat in the action area. Some examples of when a “no effect” conclusion would be reached are:

1. No species occur at all in the action area, meaning not just the immediate project area but the species are also absent from all areas where the project may have consequences, including the consequences of other activities that are caused by the proposed action. There is no critical habitat present in the action area.
2. The species occur in the action area seasonally, and the project will be timed to avoid the species presence and there will be no effects to those species once they return to the area.
3. The species and/or critical habitat occur in the action area and may be present at the

time of the project, but there are no plausible routes of effects to the species or critical habitat.

### **What happens if I make a “no effect” determination?**

If you determine that the action has no effect, there is no further Section 7 consultation with NOAA Fisheries. You should document the “no effect” determination for your files in order to explain why you are not consulting with NOAA Fisheries under ESA Section 7. Be sure to indicate which STRESSORS are relevant to the action under consideration. It is not necessary to notify NOAA Fisheries or seek our concurrence with your no effect determination as we are not obligated to review it, concur with it, or otherwise provide comments on it. We focus our limited resources on actions that do require Section 7 consultation. Each action agency is responsible for ensuring that it has considered all relevant factors and circumstances, as well as the best available scientific and commercial data.

### **What goes into a request for concurrence?**

Once you have determined that you need a consultation (i.e., the proposed action “may affect” listed species or critical habitat), the next step is to request consultation with us. We prefer to receive consultation requests in the form of a signed letter addressed to our Assistant Regional Administrator for Protected Resources - letters can be mailed or emailed to [NMFS.GAR.ESA.Section7@NOAA.gov](mailto:NMFS.GAR.ESA.Section7@NOAA.gov). For convenience, the letter can be a signed cover sheet, with the information included as an attachment.

We cannot move forward with your consultation request until we receive all necessary information (50 CFR 402(c)), which consists of:

- A complete description of the proposed action, including any measures intended to avoid, minimize, or offset effects of the action. For example, this must include (as relevant to the project):
  - the volume of material to be removed with a dredge, depth of cut, disposal location, type of dredge, area to be dredged (acres),
  - information related to turbidity, information on piles and sheetpiles to be installed (diameter, number and type, method of installation),
  - estimated distances to acoustic thresholds,
  - information on any number and type of vessels associated with the project and expected transit routes, description of any shoreline stabilization and riprap materials, dimensions of any docks, piers, floats, or other in-water structures to be installed,
  - description of any avoidance and minimization measures such as, for instance, the use of turbidity curtains during dredging or bubble curtains during pile driving as well as conducting in-water work during periods when species or vulnerable life stages are not present or to avoid periods when spawning is occurring.
- The duration and timing of the action. For example, a construction schedule with the duration of the project’s major phases of in-water work (e.g., number of days, weeks, or months; daytime only or 24-hour operation; seasonal restrictions). Duration and frequency of any maintenance activities.



- The location of the action and a thorough description of the action area. Explain where the project will take place and the extent of the area that will be exposed to the consequences, as well as any available information on the characteristics of the area including: depth, substrate type, presence of critical habitat, submerged aquatic vegetation, shellfish and other benthic resources, any biological surveys that have occurred in the area.
- Any minimization measures or best management practices to be implemented. This should include: time of year restrictions, sound minimization measures, use of turbidity curtains, etc. Your effects determination should take these measures into consideration. We cannot issue a conditional determination (e.g., “the project is NLAA if you do X, Y, or Z”).
- Your determination of which listed species or critical habitat may occur in the action area
- Identification of the stressors associated with the proposed action (e.g., noise, turbidity, loss of benthic resources) and an explanation of how those stressors may affect listed species (see below) or critical habitat.
- Your determination of effects of the action on listed species and critical habitat, and a request for our concurrence with that determination. The request should state that you have determined the proposed action may affect, but is not likely to adversely affect any listed species.

A letter template is available on our [Technical Guidance](#) webpage

### **How do I know what the effects of the action are?**

Your analysis must consider the effects of the action when added to baseline conditions; that is, what is the effect of the stressors when added to the baseline conditions (e.g., if the area has high turbidity, you consider the effect of additional turbidity on top of an already turbid environment, or if you are considering vessel traffic you consider the effects of the addition of project related vessels to vessels that are already operating in the action area).

- Use the table below, as well as tools on our [website](#) to identify the stressors associated with the activities under consultation.
- For each stressor,
  - establish if individuals may be exposed to the effect/stressor, and if so, which individuals (i.e., life stage, species);
  - explain the likely consequence of that exposure;
  - conclude whether the activity will have effects that are extremely unlikely, insignificant (“unable to meaningfully measure, detect or evaluate”), wholly beneficial (positive effects with no associated negative effects), or adverse.

### **Part 3 - Guidance to determine which “stressors” are associated with different activities**

Type of Activity	Effects to be Addressed (Stressor)	Issues to be Considered/Addressed
<b>Dredging</b>	Capture in Dredge Bucket (mechanical)	<ul style="list-style-type: none"> <li>○ Presence of individuals in the action area and their behavior and habitat use</li> <li>○ Duration and extent of dredging activity</li> <li>○ Geographic extent of area where dredging will occur and availability of suitable habitat in a “zone of passage”</li> </ul>
	Impingement or Entrainment (hopper)	<ul style="list-style-type: none"> <li>○ Presence of individuals in the action area and their behavior and habitat use</li> <li>○ Duration and extent of dredging activity</li> <li>○ Size and mobility of individuals in area</li> <li>○ Geographic extent of area where dredging will occur and availability of suitable habitat in a “zone of passage”</li> </ul>
	Impingement or Entrainment (Cutterhead)	<ul style="list-style-type: none"> <li>○ Presence of individuals in the action area and their behavior and habitat use</li> <li>○ Duration and extent of dredging activity</li> <li>○ Size and mobility of individuals in area</li> <li>○ Geographic extent of area where dredging will occur and availability of suitable habitat in a “zone of passage”</li> </ul>
	Disturbance of Sediment	Turbidity/increased suspended sediment, contaminants, loss of prey -- see below
	Substrate Type	<ul style="list-style-type: none"> <li>○ Will there be a change in substrate type?</li> <li>○ If so, does it change the way individuals will use the area?</li> <li>○ What is the impact of that change?</li> </ul>
	Change in Depth	Will the change in depth alter the function of the habitat or change how the species uses the area? Will it affect other conditions (salinity, dissolved oxygen, temperature) that may affect listed species?
	<b>Near Shore/In-Water Disposal</b>	Water Quality
Burial/Smothering of prey resources		See below
Vessel Traffic		See below
Substrate Type		See below
Change in Depth		Will the change in depth alter the function of the habitat or change how the species uses the area?
<b>Sound</b>	Noise -- Behavioral Disturbance	<ul style="list-style-type: none"> <li>○ Extent and duration of activity</li> <li>○ Size of area where behavioral disruption is anticipated</li> <li>○ Adequate zone of passage (see below)</li> </ul>

Type of Activity	Effects to be Addressed (Stressor)	Issues to be Considered/Addressed
	Noise -- Injury	<ul style="list-style-type: none"> <li>○ Extent and duration of activity</li> <li>○ Size of area where an animal would need to be to be injured and how long the animal would need to be there</li> </ul>
<b>Zone of Passage (i.e., ability of listed species to “bypass” the impacted area)</b>	Noise Sediment disturbance Physical structures	<ul style="list-style-type: none"> <li>○ Is a zone of passage maintained 24 hours a day?</li> <li>○ Size of area available for passage vs. river or waterway width</li> <li>○ Is habitat within the zone of passage appropriate for the species?</li> <li>○ What habitat will they be excluded from and what impact will that have on individuals?</li> <li>○ What will the behavioral response of animals be to blockage of passage?</li> <li>○ What impact do those responses have on individuals?</li> <li>○ If animals leave the action area, where will they go and what are the consequences of going there?</li> <li>○ Duration of blockage (i.e., hours per day for how many days)</li> </ul>
<b>Installation of structures or materials on the bottom</b>	Shading	<ul style="list-style-type: none"> <li>○ Will shading impact the way that individuals use the action area?</li> <li>○ Will shading cause an impact to prey? If so, see below</li> <li>○ Will the shading effect dissolved oxygen levels?</li> </ul>
	Loss/change in benthic habitat	Any change in depth or substrate type? If so, see above
	Effects to prey	See below
	Disturbance of bottom – contaminants	Will there be any mobilization of contaminants? See water quality, below
<b>Change in Substrate Type</b>	Alteration in substrate type	<ul style="list-style-type: none"> <li>○ Will there be a change in substrate type?</li> <li>○ If so, does it change the way individuals will use the area?</li> <li>○ What is the impact of that change?</li> </ul>
<b>Effects to Prey</b>	Direct loss of prey	<ul style="list-style-type: none"> <li>○ Any change in the abundance of prey</li> <li>○ Any change in the quality of prey</li> </ul>
	Burial/smothering of prey	

Type of Activity	Effects to be Addressed (Stressor)	Issues to be Considered/Addressed
	Alteration of substrate type	<ul style="list-style-type: none"> <li>○ How large of an area will be affected</li> <li>○ How quickly will it be recolonized</li> <li>○ How often will the area be disturbed and the alteration happen</li> <li>○ What will the behavioral response of animals be to these changes in abundance or quality?</li> <li>○ What impact do those responses have on individuals?</li> <li>○ If animals leave the action area, where will they go and what are the consequences of going there?</li> <li>○ Will this loss or alteration affect the way that animals use the action area?</li> </ul>
<b>Sediment Disturbing Activities</b>	Turbidity/suspended sediment	<ul style="list-style-type: none"> <li>○ What is the composition of the sediment plume (i.e., sediment type, TSS levels in mg/l)?</li> <li>○ How far/ wide does the sediment plume extend?</li> <li>○ How long does it last?</li> <li>○ Are individuals likely to be exposed to the increased TSS? If so, what is the impact?</li> <li>○ Does it affect zone of passage? If so, see above</li> </ul>
	Effects to prey	See above
<b>Vessels</b>	Potential for strike/interactions	<ul style="list-style-type: none"> <li>○ Number of vessels – what is the effect of adding X vessels to the baseline condition?</li> <li>○ Route – how does it overlap with individual use of action area</li> <li>○ Speed – is the speed a factor for considering potential for interactions? If so, is proposed speed ok?</li> <li>○ Are effective methods to minimize strike being used?</li> <li>○ Frequency and duration of vessel use</li> </ul>
<b>Removal of Structures</b>	Noise	See above
	Sediment disturbance	See above
<b>Aquaculture</b>	Habitat Impacts and entanglement	<ul style="list-style-type: none"> <li>○ Is there a risk of entanglement?</li> <li>○ What are the impacts to habitat?</li> <li>○ Will shellfish beds or SAV be impacted?</li> <li>○ Any loss or alteration of forage?</li> </ul>
<b>Water Quality</b>	Introduction of Pollutants/Contaminants	<ul style="list-style-type: none"> <li>○ What pollutants will be introduced?</li> <li>○ Are pollutants in compliance with national recommended water quality standards (aquatic life criteria)?</li> <li>○ Will there be any exposure to discharge prior to full dilution?</li> <li>○ What is the impact of that exposure?</li> </ul>

Type of Activity	Effects to be Addressed (Stressor)	Issues to be Considered/Addressed
	Water Quality Parameters (e.g., Temperature, Salinity, pH, Dissolved Oxygen)	<ul style="list-style-type: none"> <li>○ Are there any changes?</li> <li>○ What is geographic extent of area affected and how will animals respond?</li> </ul>

### Stressors/Thresholds of Concern

Stressor	Effects May be experienced if...	Adverse effects may be avoided if...
Sound	<ul style="list-style-type: none"> <li>• Sound intensity (dB) is &gt; ambient noise</li> <li>• Frequency (hertz[Hz]) within hearing range of all listed species in action area</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate zone of passage will be maintained throughout the action area</li> <li>• Noise remains below the relevant species thresholds:</li> </ul> <p><u>Whales:</u></p> <p><i>Injury:</i> See NOAA's 2016 Marine Mammal Acoustic Technical Guidance: <a href="https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance">https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance</a></p> <p><i>Behavior:</i> 160 dB re 1µPa RMS (impulsive noise) or 120 dB re 1µPa RMS (continuous noise)</p> <p><u>Sea Turtles:</u></p> <p><i>Permanent Threshold Shift:</i> 204 dB re 1µPa<sup>2</sup>s SEL; 232 dB re 1 µPA Peak</p> <p><i>Temporary Threshold Shift:</i> 189 dB re 1µPa<sup>2</sup>s SEL; 226 dB re 1 µPA Peak</p> <p><u>Sturgeon and Salmon:</u></p> <p><i>Injury:</i> peak noise &lt; 206 dB re 1µPa and cSEL &lt; 187 db re 1 µPA</p> <p><i>Behavior:</i> 150 dB re 1µPa RMS</p>

<sup>1</sup> In the letter, you must explain why the available zone of passage is adequate – that is, why it is reasonable to expect that that the listed species will pass through the area. Consider the width of the zone of passage, the width of the water body, the overall size of the affected area, what the animals are doing in the area, the suitability of the habitat present in the zone of passage, the accessibility of the zone of passage, and whether any factors are likely to inhibit passage.

Stressor	Effects May be experienced if...	Adverse effects may be avoided if...
<b>Habitat Structure and Disturbance</b>	<ul style="list-style-type: none"> <li>• Change in water depth</li> <li>• Change in substrate characteristics</li> </ul>	<ul style="list-style-type: none"> <li>• Any change in water depth will not change the use of the area by species</li> <li>• Any change in substrate type will not change the use of the area by species</li> </ul>
<b>Water Quality</b>	<ul style="list-style-type: none"> <li>• Potential for contaminant exposure</li> <li>• Change in water quality (temporary or permanent) including water current (speed/direction) and temperature</li> </ul>	<ul style="list-style-type: none"> <li>• Any increase in turbidity/suspended sediment is minor and temporary such that there is no impairment of movement of individual animals and there is only a minor and temporary reduction in available prey or an insignificant permanent reduction in the abundance, availability, accessibility, and quality of available prey (see below)</li> </ul>
<b>Prey Quantity/Quality</b>	<ul style="list-style-type: none"> <li>• Area used for foraging</li> <li>• Change in the abundance, availability, accessibility or quality of prey including SAV and shellfish beds</li> </ul>	<ul style="list-style-type: none"> <li>• Action causes a minor and temporary reduction in available prey</li> <li>• Action causes an insignificant permanent reduction in the abundance, availability, accessibility or quality of prey</li> <li>• The permanent loss of available prey results in only insignificant changes to foraging behavior</li> </ul>
<b>Vessels</b>	<ul style="list-style-type: none"> <li>• Change in vessel traffic (volume and/or travel route)</li> </ul>	<ul style="list-style-type: none"> <li>• Species extremely unlikely to occur in area where vessels are present</li> <li>• Any change in vessel traffic (volume and/or route) is insignificant</li> <li>• Whales – see additional guidance below</li> </ul>
<b>Dredging</b>	<ul style="list-style-type: none"> <li>• Dredging will overlap with area where species is likely to occur</li> </ul>	<ul style="list-style-type: none"> <li>• A mechanical dredge or the Currituck will be used (or similar special purpose low suction hopper dredge)</li> </ul>
<b>In-Water Structures</b>		<ul style="list-style-type: none"> <li>• Shading will have no effect or such a small effect on prey that there is no detectable loss of prey or change in foraging behavior of the listed species</li> <li>• Structures do not create any impairment of normal behaviors or block passage</li> </ul>

### **What happens once I submit my request for informal consultation?**

#### *Informal Consultation*

Your consultation request will be assigned to one of the section 7 biologists in the NOAA Fisheries Protected Resources Division. Most of our staff are in Gloucester, MA; we also currently have one biologist in Annapolis, MD. The assigned biologist will review your request for consultation and contact you by phone or email if they need more information. Our hope is that by following this guidance, we will minimize the number of times there are outstanding information needs. Responding to our requests for information quickly allows us to continue to process your request for consultation. Once we have considered all the necessary information, the section 7 biologist will draft a “letter of concurrence.” This letter will confirm if we concur with your conclusion that the proposed action is not likely to adversely affect any NOAA Fisheries

ESA-listed species and/or designated critical habitat in the action area proposed, and if so, no further consultation is required. The letter will be reviewed internally and be signed by the ARA for PRD or the RA. Upon receipt of a complete and adequate request, we shall provide written concurrence or non-concurrence with your determination within 60 days. The 60-day timeframe may be extended if we both agree to it, but shall not exceed 120 days total from the date of receipt of your written request.

**What is reinitiation? How do I know if I need to reinitiate and how do I do it?**

Many times, the projects needing consultation have a long life. In those cases, it is not unusual for something to change about the project or for a new species to be listed or critical habitat designated. Other times, take occurs when we did not expect it, or other relevant new information becomes available. Each of those scenarios may result in the need to change the analysis of the effects of the action on listed species and critical habitat. Reinitiation of consultation is required and shall be requested by the Federal action agency or by us, where discretionary Federal involvement or control over the action has been retained or is authorized by law) and:

1. If the amount or extent of taking specified in the incidental take statement is exceeded;
2. If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
3. If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or
4. If a new species is listed or critical habitat designated that may be affected by the identified action.

Trigger 1 typically only applies for formal consultations that include an Incidental Take Statement within a Biological Opinion. But, if take resulted from an action where we did not anticipate it, reinitiation would be required immediately. If a project we have consulted on is modified, we recommend you contact the biologist who wrote the consultation letter. You should discuss the changes and the potential need for reinitiation. Reinitiation isn't required just because a project is modified; the modification needs to result in a change in the level and/or type of effects to listed species or critical habitat that weren't considered in the consultation. If reinitiation is necessary, you should send us a letter (following the guidelines for a letter requesting consultation) requesting reinitiation. The request should contain your assessment of effects of the modified action but must analyze the effects of the project as a whole and not only the effects of the modified or added activities. If your new determination is that the modified action is "not likely to adversely affect" listed species or critical habitat, submit an explanation of why you come to that conclusion and request our concurrence. If we concur, we would send a letter back which would close out the consultation. However, if the modified action is likely to adversely affect listed species or critical habitat, then formal consultation would be required.

**What happens if consultation cannot be concluded informally?**

You must request formal consultation. You will prepare a Biological Assessment and submit it to us along with your request. Your consultation request will be assigned to a section 7 biologist. The assigned biologist will review your request for consultation and contact you by phone or email if they need more information. Once we have all the necessary information as described in

the implementation regulations 50 CFR 402.14(C), we will send you a letter stating that we have all the information necessary to initiate formal consultation. You should receive this letter within 30 days. The NOAA Fisheries biologist will then draft a Biological Opinion including an Incidental Take Statement (as appropriate). In a Biological Opinion, NOAA Fisheries ultimately makes a determination whether the action agency has ensured that its action is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of designated critical habitat. The ESA Section 7 regulations require us to provide a final Biological Opinion to you within 135 days of initiation (the date we receive all the necessary information). This timeline can be extended if we both agree more time is needed.

### **What is an Incidental Take Statement (ITS)?**

Section 9 of the ESA prohibits the take of a listed species. An ITS provides an exemption from the section 9 prohibitions on take. If we determine in a Biological Opinion that take is likely but that the action is not likely to jeopardize the continued existence of the listed species, we can “exempt” the expected amount of take in an ITS. The ITS will normally include Reasonable and Prudent Measures (RPMs) and Terms and Conditions designed to minimize and monitor the take. These are nondiscretionary and compliance is mandatory in order for the exemption to apply.

### **Are there any Biological Opinions I should know about?**

All of the active GARFO Biological Opinions are listed on our webpage:

<https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-biological-opinions>

You can also search for BiOps on the NOAA Repository: <https://repository.library.noaa.gov/>

If you still cannot find the BiOp that you’re looking for, please contact us at:

[nmfs.gar.esa.section7@noaa.gov](mailto:nmfs.gar.esa.section7@noaa.gov)

These consultations include detailed information on species presence and are good sources of information. The more recent the BiOp, the more likely it is to reflect the best available scientific and commercial information. However, action agencies are responsible for ensuring their requests for consultation consider the best available scientific and commercial information up to the time they submit the request to NOAA Fisheries.

## **Part 4 - Examples of Best Management Practices to Minimize Impacts to Listed Species**

### **General Considerations**

- Plan projects to avoid areas or times of year when listed species are likely to be present.
- Sediment disturbing activities should be avoided in sturgeon spawning and nursery areas to protect sensitive life stages (spawning adults and early life stages).
- Activities that result in the loss of cobble habitat in freshwater reaches should be avoided to minimize the potential for loss or disruption of sturgeon spawning and nursery habitat.
- Sediment disturbing activities should be carried out in a way that minimizes the effects to



benthic resources that serve as forage for listed species.

- Disturbance of contaminated sediments should occur behind weighted, full depth silt curtains. Precautions should be taken to avoid trapping fish within silt curtains.

### **Dredging**

- When possible, a mechanical dredge should be used (rather than a pipeline or hopper dredge).

### **In-water Structures**

- Docks, piers, and floats should be constructed in a way that minimizes the potential to disturb benthic resources.

### **Pile Driving**

- Use a vibratory hammer to the maximum extent practicable.
- Use cushion blocks or other noise attenuation devices when using an impact hammer.
- Limit pile driving activities to no more than 12 hours per day.
- Use a “soft start” for a pile driving activities where driving does not occur at full power at first.
- Pile driving should be carried out in a way that avoids exceeding noise thresholds identified for the listed species that occur in the action area.

### **Vessel Operations**

- Shallow draft vessels that maximize the navigational clearance between the vessel and the river bottom should be used where possible.
- Vessels should operate at speeds of less than 10 knots. Whenever operating in areas where whales or sea turtles are present, a look out should be posted and measures taken to slow down and avoid any whales or sea turtles spotted.