Essential Fish Habitat Description
Yellowtail flounder (*Pleuronectes ferruginea*)

In its *Report to Congress: Status of the Fisheries of the United States* (September 1997), NMFS determined the Georges Bank and Southern New England stocks of yellowtail flounder are neither currently overfished nor approaching an overfished condition. There is not enough information to determine if the Cape Cod or Middle Atlantic stocks are overfished or approaching an overfished condition. For all four stocks of yellowtail flounder, essential fish habitat is described as those areas of the coastal and offshore waters (out to the offshore U.S. boundary of the exclusive economic zone) that are designated on Figures 17.1 - 17.4 and in the accompanying table and meet the following conditions:

Eggs: Surface waters of Georges Bank, Massachusetts Bay, Cape Cod Bay, and the southern New England continental shelf south to Delaware Bay as depicted in Figure 17.1. Generally, the following conditions exist where yellowtail eggs are found: sea surface temperatures below 15° C, water depths from 30 - 90 meters and a salinity range from 32.4 - 33.5‰. Yellowtail flounder eggs are most often observed during the months from mid-March to July, with peaks in April to June in southern New England.

Larvae: Surface waters of Georges Bank, Massachusetts Bay, Cape Cod Bay, the southern New England shelf and throughout the middle Atlantic south to the Chesapeake Bay as depicted in Figure 17.2. Generally, the following conditions exist where yellowtail larvae are found: sea surface temperatures below 17° C, water depths from 10 - 90 meters, and a salinity range from 32.4 - 33.5‰. Yellowtail flounder larvae are most often observed from March through April in the New York bight and from May through July in southern New England and southeastern Georges Bank.

Juveniles: Bottom habitats with a substrate of sand or sand and mud on Georges Bank, the Gulf of Maine, and the southern New England shelf south to Delaware Bay as depicted in Figure 17.3. Generally, the following conditions exist where yellowtail flounder juveniles are found: water temperatures below 15° C, depths from 20 - 50 meters and a salinity range from 32.4 - 33.5‰.

Adults: Bottom habitats with a substrate of sand or sand and mud on Georges Bank, the Gulf of Maine, and the southern New England shelf south to Delaware Bay as depicted in Figure 17.4. Generally, the following conditions exist where yellowtail flounder adults are found: water temperatures below 15° C, depths from 20 - 50 meters, and a salinity range from 32.4 - 33.5‰ .

Spawning Adults: Bottom habitats with a substrate of sand or sand and mud on Georges Bank, the Gulf of Maine, and the southern New England shelf south to Delaware Bay as depicted in Figure 17.4. Generally, the following conditions exist where spawning yellowtail flounder adults are found: water temperatures below 17° C, depths from 10 - 125 meters, and a salinity range from 32.4 - 33.5‰.

All of the above EFH descriptions include those bays and estuaries listed on the following table, according to life history stage. The Council acknowledges potential seasonal and spatial variability of the conditions generally associated with this species.

EFH Designation of Estuaries and Embayments
Yellowtail flounder (*Pleuronectes ferruginea*)

Estuaries and Embayments	Eggs	Larvae	Juveniles	Adults	Spawning Adults
Passamaquoddy Bay	S	S			
Englishman/Machias Bay	S	S			
Narraguagus Bay	S	S			
Blue Hill Bay	S	S			
Penobscot Bay	S	S			
Muscongus Bay	S	S			
Damariscotta River	S	S			
Sheepscot River	S	S	S	S	
Kennebec / Androscoggin Rivers	S	S			
Casco Bay	S	S	S	S	
Saco Bay	S	S			
Wells Harbor		S			
Great Bay	S	S			
Merrimack River	S	S			
Massachusetts Bay	S	S	S	S	S
Boston Harbor	S	S	S	S	S
Cape Cod Bay	S	S	S	S	S
Waquoit Bay					
Buzzards Bay					
Narragansett Bay					
Long Island Sound					
Connecticut River					
Gardiners Bay					
Great South Bay					
Hudson River / Raritan Bay					
Barnegat Bay					
Delaware Bay					
Chincoteague Bay					
Chesapeake Bay					

S ≡ The EFH designation for this species includes the seawater salinity zone of this bay or estuary (salinity > 25.0‰).

M ≡ The EFH designation for this species includes the mixing water / brackish salinity zone of this bay or estuary (0.5 < salinity < 25.0‰).

F ≡ The EFH designation for this species includes the tidal freshwater salinity zone of this bay or estuary (0.0 < salinity < 0.5‰).

These EFH designations of estuaries and embayments are based on the NOAA Estuarine Living Marine Resources (ELMR) program (Jury *et al.* 1994; Stone *et al.* 1994). For a detailed view of the salinity zone boundaries, as described in the ELMR reports, please see Appendix B. The Council recognizes the spatial and temporal variability of estuarine and embayment environmental conditions generally associated with this species.

Essential Fish Habitat
Yellowtail flounder (*Pleuronectes ferruginea*) Eggs

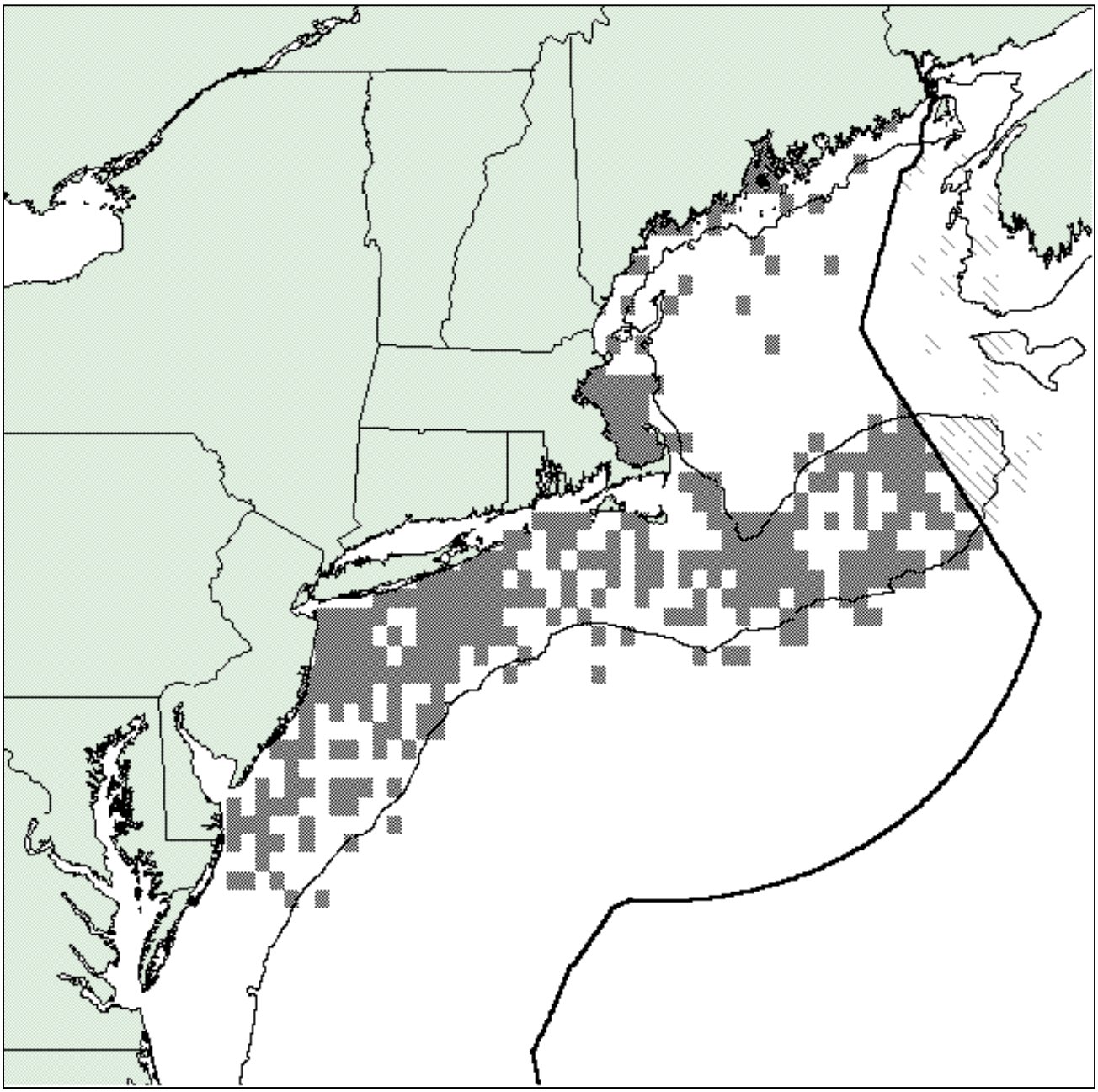

Figure 17.1: The EFH designation for yellowtail flounder eggs is based upon alternative 4 for yellowtail flounder eggs. In addition, this designation includes those bays and estuaries identified in the NOAA ELMR program as supporting yellowtail flounder eggs at the "rare", "common", or "abundant" level. This alternative was selected to be as inclusive as possible of areas likely to support yellowtail flounder eggs. The light shading represents the entire observed range of yellowtail flounder eggs.

Essential Fish Habitat
Yellowtail flounder (*Pleuronectes ferruginea*) Larvae

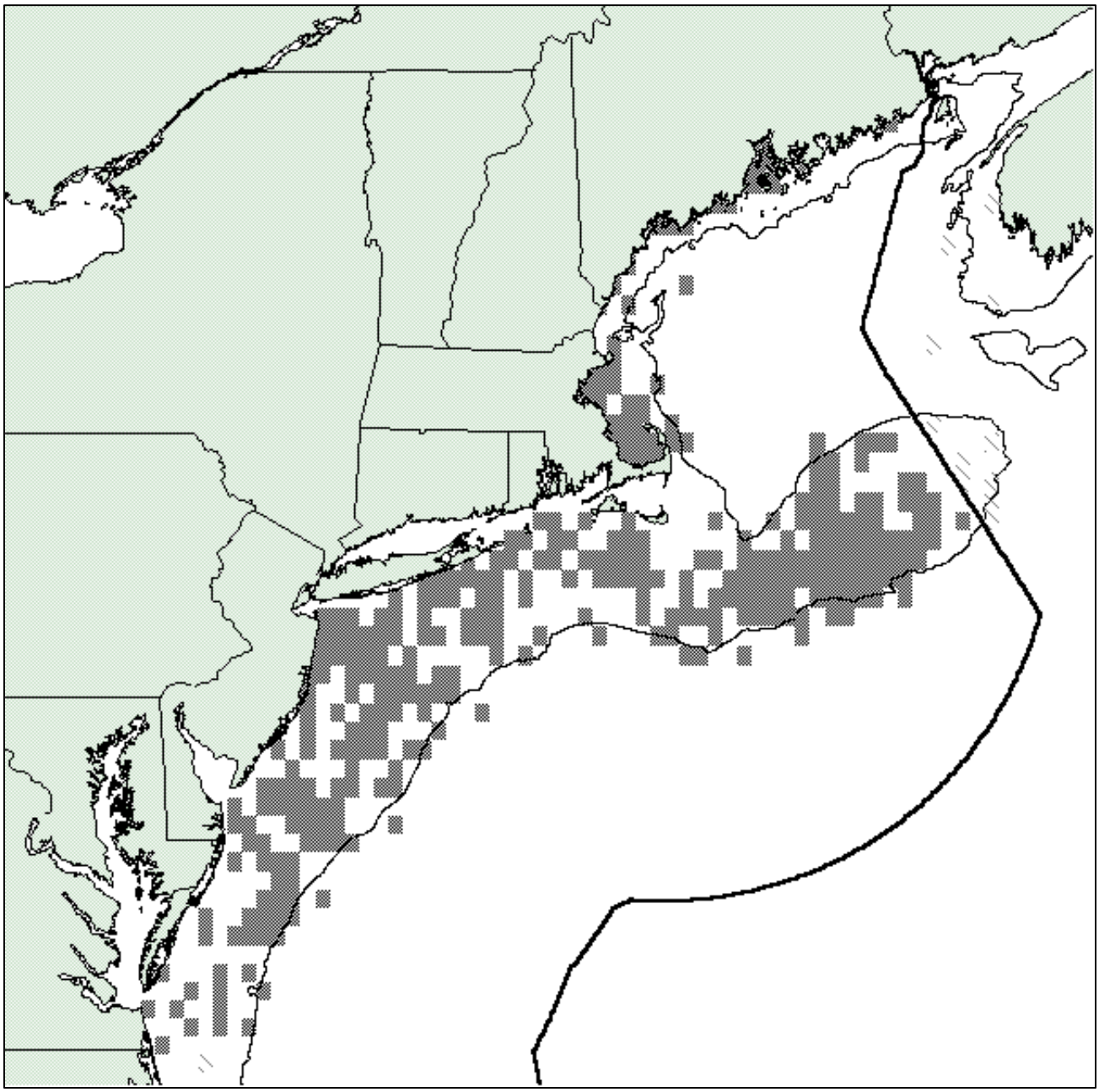

Figure 17.2: The EFH designation for yellowtail flounder larvae is based upon alternative 4 for yellowtail flounder larvae. In addition, this designation includes those bays and estuaries identified in the NOAA ELMR program as supporting yellowtail flounder larvae at the "rare", "common", or "abundant" level. This alternative was selected to be as inclusive as possible of areas likely to support yellowtail flounder larvae. The light shading represents the entire observed range of yellowtail flounder larvae.

Essential Fish Habitat
Yellowtail flounder (*Pleuronectes ferruginea*) Juveniles

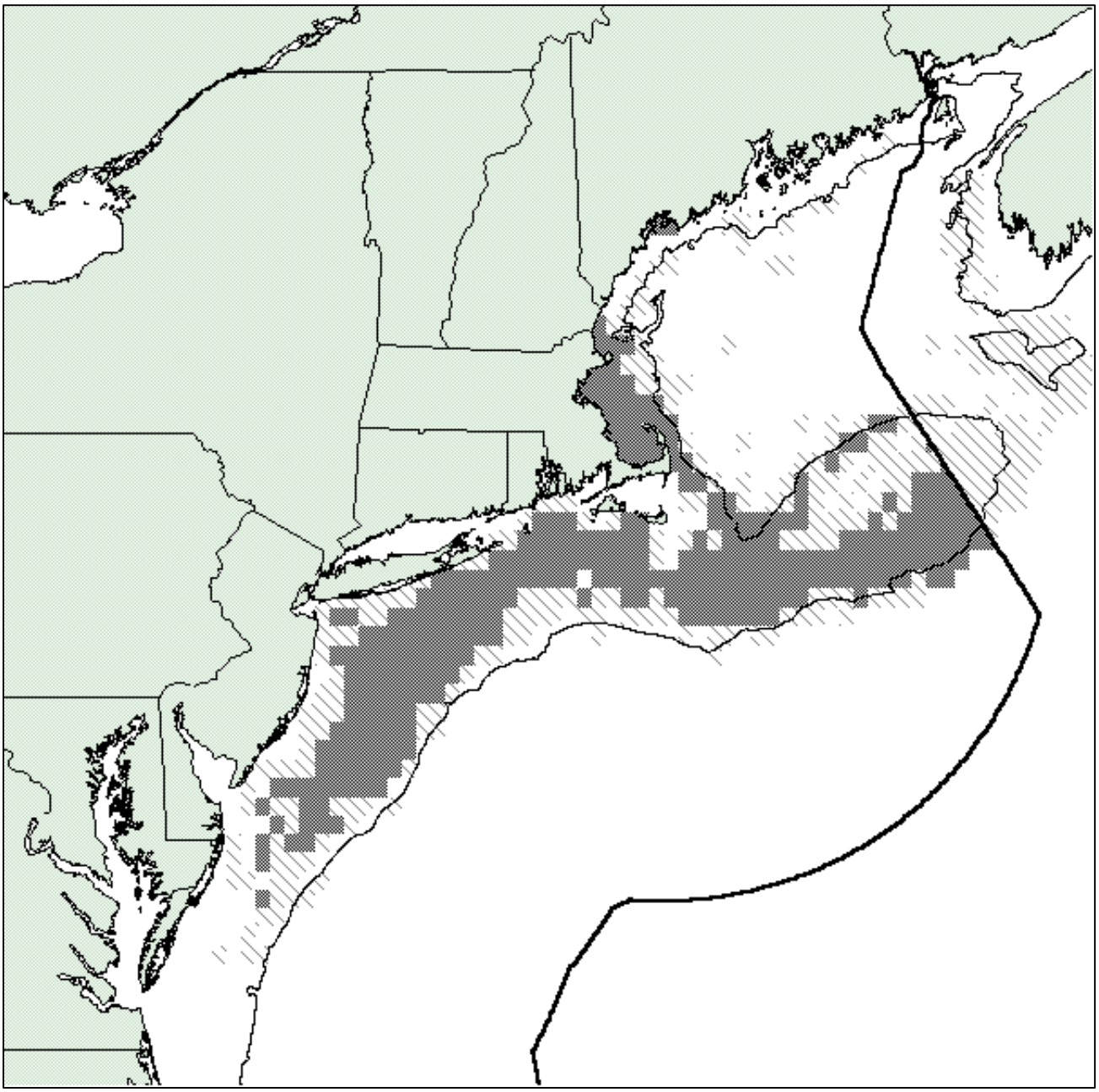

Figure 17.3: The EFH designation for juvenile yellowtail flounder is based upon alternative 3 for yellowtail flounder juveniles. In addition, this designation includes those bays and estuaries identified in the NOAA ELMR program as supporting yellowtail flounder juveniles at the "common" or "abundant" level. This alternative was selected because it included all areas where yellowtail flounder juveniles were observed in relatively high concentrations, but did not include areas where they occurred in low concentrations. The light shading represents the entire observed range of juvenile yellowtail flounder.

Essential Fish Habitat
Yellowtail flounder (*Pleuronectes ferruginea*) Adults

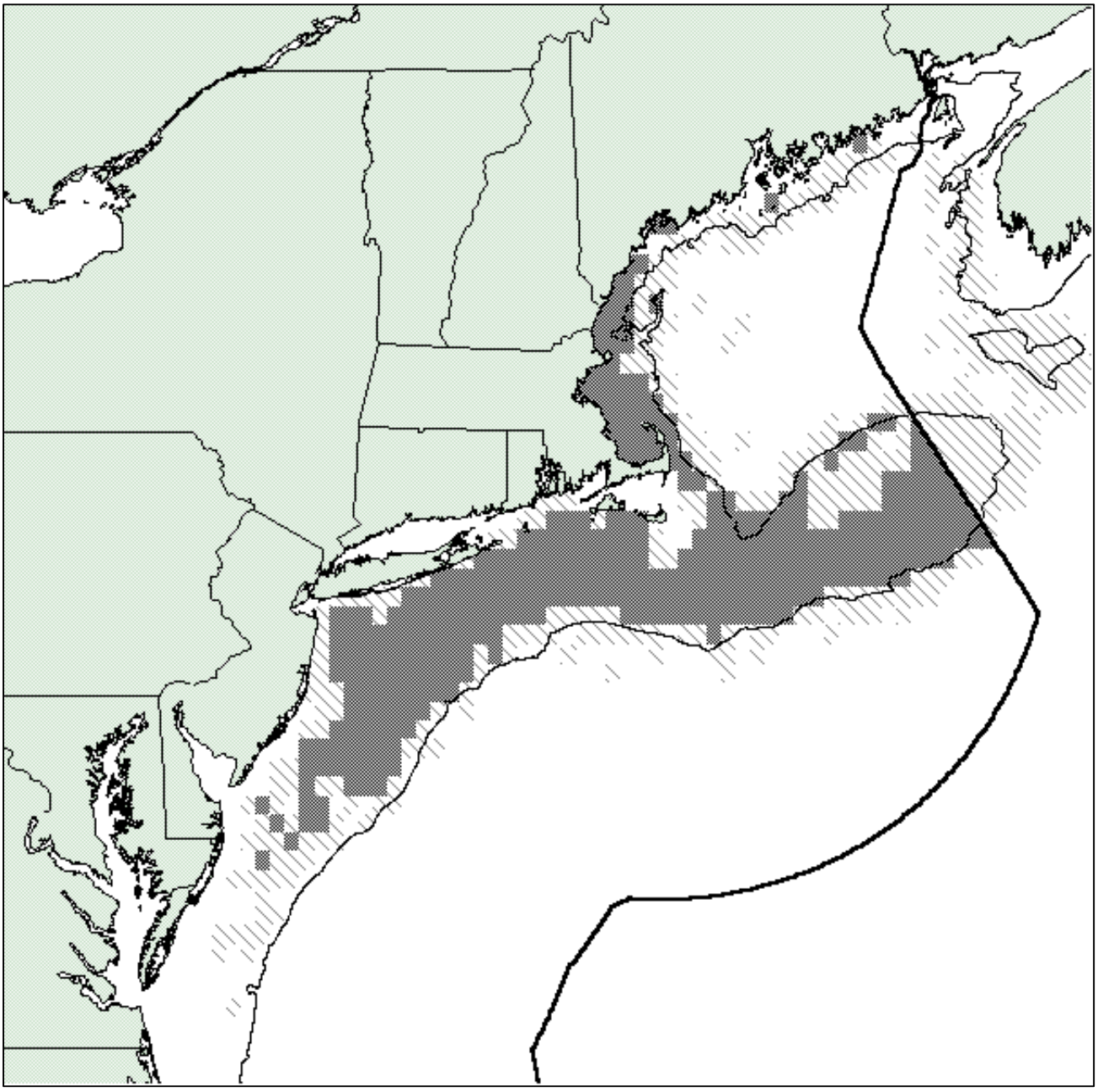

Figure 17.4: The EFH designation for adult yellowtail flounder is based upon alternative 3 for yellowtail flounder adults. In addition, this designation includes those bays and estuaries identified in the NOAA ELMR program as supporting yellowtail flounder adults at the "common" or "abundant" level, as well as areas identified by the fishing industry as important for spawning adults. This alternative was selected because it included all areas where yellowtail flounder adults were observed in relatively high concentrations, but did not include areas where they occurred in low concentrations. The light shading represents the entire observed range of adult yellowtail flounder.