UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930-2276

SEP 12 2016

Mr. Craig Lapijko
Waterways Management Branch
Coast Guard First District
408 Atlantic Avenue
Boston, MA 02110

Re: Docket Number USCG-2016-0132 Anchorage Grounds, Hudson River; Yonkers, NY to Kingston, NY

Dear Mr. Lapijko,

We have reviewed your Advance Notice of Proposed Rule Making for potential designation of new anchorages in the Hudson River between Yonkers and Kingston. You have identified ten sites that you may consider for future designation as commercial anchorage areas. It is our understanding that the goal of this effort is to increase navigational safety in the river and that any designation will be the subject of a future proposed rulemaking. The area between Yonkers and Kingston currently does not have any designated anchorage areas.

The Protected Resources Division of the National Marine Fisheries Service oversees programs related to the protection and recovery of species listed under the Endangered Species Act (ESA) of 1973, as amended. The Hudson River supports populations of ESA listed Atlantic and shortnose sturgeon and is being proposed for designation as critical habitat for the endangered New York Bight distinct population segment of Atlantic sturgeon. Below, we provide you with a brief summary of available information on the use of the river by these species and provide links to webpages where you can find more information. We also provide information on the ESA section 7 consultation process and identify issues that we urge you to consider as you move forward with this rulemaking.

Atlantic sturgeon are estuarine-dependent, anadromous fish that return to their natal river to spawn. The Hudson River subpopulation of Atlantic sturgeon is one of two known spawning subpopulations for the New York Bight distinct population segment (DPS) of Atlantic sturgeon, which was listed as endangered in 2012. Hudson River Atlantic sturgeon mature relatively late (approximately 11 to 21 years depending on sex of the fish), and do not necessarily spawn every year. In addition, there is a lengthy period of development in the natal estuary before the offspring are able to make their first migration to the marine environment.

Available information on the Hudson River subpopulation was summarized for the Status Review of Atlantic Sturgeon (Atlantic Sturgeon Status Review Team 2007), the Atlantic State Marine Fisheries Commission summary of Atlantic Coast Diadromous Fish Habitat (Greene *et al.* 2009), the proposed and final listing rules for the New York Bight DPS (75 FR 61872 and 77

FR 5880, respectively), and the proposed rule to designate critical habitat for the New York Bight DPS of Atlantic sturgeon (81 FR 35701, June 3, 2016). Briefly, the upstream limit for Atlantic sturgeon in the Hudson River is the Troy Dam, approximately river kilometer 246. Likely areas of spawning include the area around river kilometer 134 and river kilometer 112.Catches of Atlantic sturgeon suggest that sexually immature fish utilize the Hudson River estuary from the Tappan Zee (river kilometer 40) through Kingston (river kilometer 148). Areas of the river downstream of seasonal freshwater spawning areas are used by subadults and adults as staging, resting, or holding areas. In addition to being used by the New York Bight DPS, subadult and adult Atlantic sturgeon from the four other distinct population segments (Gulf of Maine, Chesapeake Bay, Carolina and South Atlantic) may also occur in the Hudson River. The areas used by Atlantic sturgeon overlap with the areas under consideration for anchorage areas.

A proposed rule regarding the designation of critical habitat for the New York Bight DPS of published in the *Federal Register* on June 3, 2016. The proposed critical habitat includes the Hudson River from river mile 0 to the Troy Dam and includes all of the potential anchorage areas. The critical habitat designation is for habitats that support successful Atlantic sturgeon reproduction and recruitment. The essential features identified in the proposed rule are:

- suitable hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand range) for settlement of fertilized eggs, refuge, growth, and development of early life stages;
- transitional salinity zones of 0.5-30 parts per thousand inclusive of waters with a gradual downstream gradient and soft substrate (e.g., sand, mud) downstream of spawning sites for juvenile foraging and physiological development;
- water depth of up to 27 meters absent physical barriers to passage (e.g., locks, dams, reservoirs, gear, etc.) between the river mouth and spawning sites for unimpeded movements of spawning adults as well as seasonal and physiological-dependent movement of juvenile Atlantic sturgeon to appropriate salinity zones within the river estuary, and;
- Water with the temperature, salinity, and oxygen values that, combined, provide for dissolved oxygen values that support successful reproduction and recruitment (e.g., 6 mg/L for juvenile rearing habitat) and are within the temperature range that supports the habitat function (e.g., 13 to 26° C for spawning habitat and no more than 30° C for juvenile rearing habitat).

We anticipate publishing a final rule for critical habitat in early June, 2017 in accordance with the deadline specified in a court ordered settlement. We expect any future rulemaking to designate anchorage areas would need to consider impacts to both Atlantic sturgeon and their critical habitat.

Shortnose sturgeon are listed as endangered throughout their range. They occur in the Hudson River from upper Staten Island (RM -3) to the Troy Dam (RM 155) (Bain *et al.* 2000, ASA 2008). The most recent abundance estimates of shortnose sturgeon in the Hudson River range from a low of 25,255 to a high of 80,026; though 61,057 is the abundance estimate from the dataset and modeling exercise that is typically used (Bain *et al.* 2000). This estimate is based on

mark-recapture sampling carried out from 1994-1997.

Shortnose sturgeon spawning grounds extend from below the Troy Dam to about Coeymans, NY (RM 152-131) (Dovel *et al.* 1992)). Spawning typically occurs at water temperatures between 10 and 18°C (50-64.4°F) after which adults disperse quickly down river into their summer range (SSSRT 2010). In the Hudson River, temperatures (as measured at the USGS gage in Albany) are typically between 8 and 18°C for a 4-6 week period between early April and late May each year. Shortnose sturgeon eggs adhere to solid objects on the river bottom (Buckley and Kynard 1981; Taubert 1980). Eggs and larvae are expected to remain within the vicinity of the spawning grounds for approximately four weeks post spawning (i.e., at latest through mid-June). Larvae gradually disperse downstream after hatching, entering the tidal river (Hoff *et al.* 1988) and concentrating in deep channel habitat (Taubert and Dadswell 1980; Bath *et al.* 1981; Kieffer and Kynard 1993; Dovel *et al.* 1992). Shortnose sturgeon occur in the areas under consideration as anchorages.

Vessel strikes are known to injure and kill sturgeon. However, there is a paucity of information for other affects to sturgeon from vessel activities including anchoring. We recently awarded funding for a study to investigate the effects of anchor scarring within existing Hudson River anchorages where sturgeon are known to occur. We expect that the results of this study will further our understanding of the impacts of large commercial anchors on habitats used by sturgeon in the Hudson River.

It is not clear to us whether the designation of one or more anchorages would result in an increase in vessel traffic in the river (or a change in vessel type) or a change in vessel use patterns (i.e., would vessels that would normally transit through without anchoring now anchor). It is also not clear whether you anticipate the anchorages would be used by vessels that are currently anchoring at other designated anchorages in the Hudson River (outside the Yonkers to Kingston area) or by vessels that currently anchor in the Yonkers to Kingston area but just not in a designated area. Without this type of information it is more difficult to understand the potential impacts to sturgeon and their habitats.

We encourage you to consider all possible effects of designating anchorages on Atlantic and shortnose sturgeon and their habitat. We recognize that there could be benefits of a designation if it means that habitat impacts (e.g., scarring) or impacts to fish (e.g., disturbance of overwintering individuals) are limited to one particular area (and this area is not a high use aggregation area or foraging area for sturgeon) rather than being spread out over multiple areas. We would like to work with you to ensure that the outcome of any future rulemaking considers the benefits and potential negative impacts to sturgeon and their habitat. We urge you to review the available information on sturgeon in the Hudson River and consider whether different areas could be designated for use during different seasons. We also encourage you to consider the possibility of deploying permanent anchoring or tie-up facilities to minimize the impacts of anchor deployment and chain sweep on the bottom substrate.

Any consideration of designating an anchorage should include a complete and thorough assessment of: the effects of alterations on vessel traffic patterns in the river (i.e., will the designation increase vessel usage in a particular area and would that effect the risk of vessel

strike to sturgeon); impacts to sturgeon, particularly early life stages, of disturbance of river sediments resulting from anchor deployment, chain sweep, and anchor removal; impacts to habitat, including the features of the proposed critical habitat; impacts to sturgeon prey; and, effects to how sturgeon use the areas.

If you move forward with the designation of one or more anchorage areas, we expect this would be considered a federal action requiring ESA section 7 consultation. As you know, section 7(a)(2) of the ESA requires that each Federal agency shall insure 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. There is guidance on our website (http://www.greateratlantic.fisheries.noaa.gov/section7) to assist action agencies with their description of the action and analysis of effects to support their effects determination. We welcome an opportunity to meet with you to discuss potential effects of designating one or more of these anchorage areas. Please contact Julie Crocker to set up a meeting (Julie.Crocker@Noaa.gov or 978-282-8480) or to answer any questions about sturgeon, the proposed critical habitat designation, or these comments.

Sincerely,

Kimberly B. Damon-Randall
Assistant Regional Administrator
for Protected Resources

EC: Crocker, Marrone, Lanskear – F/GAR3

File Code: USCG Hudson River Anchorages