



February 26, 2013

Greg Pope  
DNREC Financial Assistance Branch  
5 E. Reed St. Suite 200  
Dover, DE 19901  
greg.pope@state.de.us

Re: Comment on City of Rehoboth Beach Proposed Ocean Outfall Final Environmental Impact Statement

Dear Mr. Pope:

We submit these comments for your consideration regarding the impacts of the City of Rehoboth Beach Ocean Outfall Project proposal on the Atlantic sturgeon, a species listed in five separate Distinct Population Segments (DPS) by the National Marine Fisheries Service (NMFS) under the federal Endangered Species Act (ESA).

The potential risks from the Outfall Project to the Atlantic sturgeon and its habitat are not adequately analyzed in the December 2012 Final Environmental Impact Statement (EIS). We urge you to recognize that, although the Outfall Project has the potential to affect Atlantic sturgeon from a number of listed DPSs, the genetically unique sub-population of Atlantic sturgeon that spawns in the Delaware River is already at critically low numbers and any impacts to these particular fish would have serious implications for the New York Bight DPS of which these fish are a part. The designation of Atlantic sturgeon critical habitat by NMFS is expected in April 2013. With this imminent designation as well as new research rapidly adding to our knowledge of this imperiled species, we urge you to exercise caution and ensure full consideration of the potential effects that the Outfall Project could have on Atlantic sturgeon before approving the final EIS or making any decision to approve the project. We also urge you to seek the National Marine Fisheries Service's guidance on whether an incidental take permit and habitat conservation plan is required under the ESA for the Atlantic sturgeon or any other federally listed species.

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**DNREC is liable under the ESA for any action that results in take of endangered Atlantic sturgeon, including significant habitat modification or degradation**

Section 9 of the ESA, 16 U.S.C. § 1538(a)(1) (2006), makes it unlawful for state and private entities to take endangered fish or wildlife species. The ESA defines “take” to mean “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect” an endangered species.” 16 U.S.C. § 1532(19). “Take” has been interpreted to include significant habitat modification or degradation. *Bennett v. Spear*, 520 U.S. 154, 170 (1997) (citing *Babbitt v. Sweet Home Chapter, Communities for Great Ore.*, 515 U.S. 687, 708 (1995)); 50 C.F.R. § 222.102 (“Harm in the definition of ‘take’ in the Act means an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning, rearing, migrating, feeding or sheltering.”); cf. 16 U.S.C. § 1533(a)(1)(A) (listing “destruction, modification, or curtailment of [] habitat” as one rationale for listing species as endangered or threatened). The ESA provides that violations of this take provision are enforceable via citizen suit and also establishes civil and criminal penalties.

In February 2012, NMFS listed the Atlantic sturgeon originating from the Delaware River as endangered as part of the New York Bight DPS. *Endangered and Threatened Wildlife and Plants; Threatened and Endangered Status for Distinct Population Segments of Atlantic Sturgeon in the Northeast Region*, 77 Fed. Reg. 5880 (2012). As NMFS has acknowledged, there were once 180,000 spawning female Atlantic sturgeon in the Delaware River. NMFS’s latest population estimate based on fisheries bycatch data is that there is a mean of 87 spawning adult Atlantic sturgeon annually in the Delaware River. This number is even lower than previous estimates of 300 spawning adults, and highlights the absolute imperative of ensuring that the Outfall Project does not result in any further diminution of this genetically unique population. Overall, however, the ESA’s prohibitions of take of Atlantic sturgeon apply to any fish that may be affected by the Outfall Project, no matter their river of natal origin.

The Atlantic sturgeon, an anadromous species, spends a good portion of its lifecycle in the Atlantic Ocean. Atlantic sturgeon either originating from the Delaware River or other natal rivers may be affected by the proposed action. The Outfall Project will reduce and degrade available feeding habitat and release contaminants. Increased turbidity, destruction of benthic organisms upon which the species feeds, and direct contact are expected short-term effects of the Outfall construction. Importantly, recovery of benthic organisms could take as long as a “few years.” Thus, even if Atlantic sturgeon are not immediately affected by construction activities at the time the Outfall Project is actually constructed, the effects of the Outfall Project may adversely affect those Atlantic sturgeon as they return to the area over time.

What is more, because Atlantic sturgeon forage for and eat food that lives on the bottom of the River, because they have long life spans, and because they are subjected to contaminants in all of the habitats they use throughout their life cycle, they are believed to be particularly susceptible to environmental contamination. Toxic metals, PAHs (polychlorinated aromatic hydrocarbons), organophosphate and organochlorine pesticides, PCBs (polychlorinated biphenyls) and other

chlorinated hydrocarbon compounds have been found to harm fish by causing production of acute lesions, growth retardation, reproductive impairment, reduced egg viability, reduced survival of larval fish, delayed maturity and posterior malformations. Exposure to pesticides harms anti-predator and homing behavior in fish, as well as harming reproductive function, physiological development, swimming speed, and swimming distances. Deformities and ulcerations found in Atlantic sturgeon in the Brunswick River may be due to poor water quality as well as boat propeller injuries.

Early life stages of Atlantic sturgeon have been found to be more susceptible to some contaminants than a variety of other threatened and endangered fish species, and more susceptible than fish species that are more typically used to test for the aquatic toxicity of contaminants (i.e. fathead minnow, sheepshead minnow, and rainbow trout). Increasing contaminant loads can alter growth and reproductive performance of Atlantic sturgeon. For these reasons, the introduction of any contaminants into the Atlantic sturgeon's habitat should be treated with the utmost concern.

Although the odds may not be high, the possibility nevertheless exists that dredging and other construction activities involved in building the Outfall Project may result in the direct take of Atlantic sturgeon. In its rule listing the Atlantic sturgeon under the ESA, *see supra*, NMFS identified dredging as one of the threats to the species warranting listing.

Because numerous aspects of the Outfall Project have the potential to result in take of Atlantic sturgeon, either directly or through the significant modification or degradation of sturgeon habitat, DNREC would be well-advised not only to engage in a more thorough and in-depth analysis in the EIS of potential impacts to Atlantic sturgeon and Atlantic sturgeon habitat but also to confer with NMFS on whether it would be prudent to apply for an incidental take permit.

**DNREC should exercise caution and wait for the forthcoming NMFS critical habitat designation**

In the final EIS, impacts to Atlantic sturgeon are considered to be minimal due to the migratory nature of the species and the dissipation over time of contaminants to background levels. Without full information on the species' critical habitat, DNREC does not have a complete foundation upon which to base these conclusions.

In the final rule listing three DPS of Atlantic sturgeon in the Northeast Region, NMFS made a "not yet determinable" finding for critical habitat, extending the mandatory statutory deadline for critical habitat designation by one year. This extended deadline is approaching in April 2013, and DNREC should wait for the final designation of Atlantic sturgeon critical habitat in order to incorporate and address this information in the final EIS. Research has demonstrated that many reaches of the Delaware River and nearby ocean are important to the various life stages of Atlantic sturgeon. NMFS' critical habitat rule, which must be based upon the best available scientific and commercial data, is sure to provide more information about the importance of near-shore oceanic habitat such as the area to be affected by the Outfall Project.

Given the extremely precarious status of the Atlantic sturgeon overall, as well as the genetically unique Delaware River Atlantic sturgeon that are part of the New York Bight DPS, DNREC should

exercise caution to avoid any action that may result in take of the species (including significant habitat modification or degradation) until all relevant information is available.

In sum, because of the serious legal consequences for violating ESA Section 9's prohibition against take of endangered species, and because of the serious real-world consequences to the Atlantic sturgeon population of any direct or indirect take, we urge you to revise the EIS to include a much more detailed analysis of the Outfall Project's potential impacts on Atlantic sturgeon. We also urge you to consult with NMFS to determine whether an incidental take permit for Atlantic sturgeon or any other potentially affected federally listed species is required for the Outfall Project. Any decision to finalize the EIS or to approve the Outfall Project before DNREC has taken these steps would be premature.

Thank you for considering these comments.

Sincerely,

A handwritten signature in blue ink that reads "Maya K. van Rossum" followed by a horizontal line.

Maya K. van Rossum  
the Delaware Riverkeeper