

November 12, 2010

District Engineer  
US Army Corps of Engineers  
Philadelphia District  
Wanamaker Building  
100 Penn Square East  
Philadelphia, PA 19107-3390

**Re: CENAP-OP-R-2009-0933-1**

District Engineer,

The Delaware Riverkeeper Network, Delaware Audubon Society, New Jersey Environmental Federation, NJ Sierra Club and National Wildlife Federation submit this additional written comment regarding the Southport Development public notice CENAP-OP-R-2009-0933-1.

We begin by asking for a response to our request in our previous comment that “The Army Corps’ economic and EISs and 2009 EA documents created for the Delaware Deepening project are incorporated here by reference – we ask that the Army Corps make those documents part of the official Southport record. If the Army Corps is unwilling to do that the Delaware Riverkeeper Network can certainly copy and send in those documents for the Corps, but considering those are Army Corps documents we ask that in the interest of resources all of the economic reviews for the deepening project as well as the 1992 EIS, the 1997 SEIS and the 2009 EA be included in the Southport record of decisionmaking as they demonstrate the Army Corps’ conclusion that deepening will not increase vessel calls or tonnage coming to the Delaware River, and therefore the claims of need for Southport in order to accommodate increased vessel calls that will result from deepening is demonstrably flawed.”

In the absence of a response we will justifiably presume and rely upon the belief that you have honored this request to include these documents in the Southport record. But incase we have sent you copies of these discs either in paper or electronically.

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### Magnuson-Stevens Fishery Conservation and Management Act

It is important to note for the record that in addition to the Army Corps' concerted efforts to undermine application of the National Environmental Policy Act or give due courtesy or respect to its sister-federal agencies, and in addition to its failure to properly pursue the Clean Water Act permitting process for the Southport project, the Army Corps is also trying to evade application of the Magnuson-Stevens Fishery Conservation and Management Act with regards to Essential Fish Habitat (EFH). In a series of email exchanges (copy attached) Corps officials communicated with one another expressing concern about the effect if they "capitulated to NMFS" with regards to application of the essential fish habitat regulations. They then also discuss a process with themselves and others about using a "15-day stealth option" against NMFS and the USF&WS to try to get out from under their EFH findings and regulatory application. It is troubling that the Army Corps is so committed to its pre-determined findings for this project and its desire to see it move forward (for unknown but perhaps purely political reasons) that it would undermine the law and its colleague federal agencies who in fact have lead over the issues in question.

According to NMFS, contradicting claims of project supporters and the Army Corps, there is in fact designated Essential Fish Habitat under the Magnuson-Stevens Fishery Conservation and Management Act that will be affected by this project. "The mixing zone in the Delaware River has been designated as EFH for all life stages of winter flounder and windowpane, juvenile and adult bluefish, summer flounder, juveniles Atlantic sea herring, Atlantic butterfish (*Peprilus triacanthus*), scup (*Stenotomus chrysops*), black sea bass (*Centropristis striata*) and all life stages, king mackerel (*Scomberomorus cavalla*), Spanish mackerel (*Scomberomorus maculatus*), cobia (*Rachycentron canadum*), clearnose skate (*Raja eglanteria*), little skate (*Leucoraja erinacea*), and winter skate (*Leucoraja ocellata*). The mixing zone is those areas of the River where the salinities range from 25 ppt to 5 ppt according to NMFS, bringing the mixing zone to just above the Schuylkill River in PA; therefore "EFH may be designated at the project site." (NMFS 10/22/10) According to the EFH final rule published in the Federal Register on January 17, 2002, an adverse effect on EFH is "any impacts which reduce the quality and/or quantity of EFH." This affect may be direct or indirect, it may be physical, chemical or biological alterations of the waters or the substrate, it may include the loss or injury of benthic organisms, prey species and their habitat or other ecosystem components. Adverse effects may result from action within or without the EFH area. Adverse impacts may include individual, cumulative, synergistic consequences of actions, and the effect may be site-specific or habitat-wide. Adverse effect may be the loss or reduction in availability of prey species through direct harm or capture, or through harm to the prey species' habitat. The Southport project, which will result in significant levels of dredging, filling, altered circulation patterns, water quality degradation, destruction of shallow water habitat and riparian habitat, and so on, will have a substantial and unacceptable impact to a wide variety of NOAA trust resources. (See NMFS letter 10/22/2010).

The Essential Fish Habitat document submitted by the Army Corps on August 5, 2010 not only fails to identify EFH affected by the project, but it also discounts/undervalues significantly the effects it admits the project will have:

- ✓ Food production – the assertion of no effect is contradicted by the information in this comment and our previous comment as well as supporting materials and submissions by other agencies.
- ✓ Conservation – the assertion of minimal adverse effect is contradicted by the information in this comment and our previous comment as well as supporting materials and submissions by other agencies. And the assertion that it will be addressed through mitigation is wholly inappropriate as the mitigation proposed is obviously deficient and the Army Corps has never attempted to address that.
- ✓ Water quality -- – the assertion of minimal adverse affect is contradicted by the information in this comment and our previous comment as well as supporting materials and submissions by other agencies. And the assertion that it will be addressed through mitigation is wholly inappropriate as the mitigation proposed is obviously deficient.
- ✓ Fish and wildlife -- – the assertion of minimal adverse affect is contradicted by the information in this comment and our previous comment as well as supporting materials and submissions by other agencies. And the assertion that it will be addressed through mitigation is wholly inappropriate as the mitigation proposed is obviously deficient and the Army Corps has never attempted to address that.
- ✓ Noise -- – the assertion of minimal adverse affect is contradicted by the information regarding the affects of the pile driving associated with this project as submitted in our previous comment and other agency comment.
- ✓ Economics – there is no demonstration of economic benefits and it is shocking the Army Corps would even try to make such a ridiculous claim. Not only did the project supporters not provide supporting information, but the documentation the Army Corps put together in support of the deepening project contradicts such a claim (as documented in this and our previous comment and the comments submitted by NMFS).
- ✓ Recreation & Aesthetics– the assertion of no effect on recreation is not accurate either. A project such as this that affects species like shad and striped bass of such great interest to recreational anglers, that affects bald eagle of such great interest to bird watchers, and that will replace a vegetated bank with a hardened bank affecting the aesthetics for boaters will most certainly adversely affect recreation.
- ✓ General Environmental Concerns – the assertion of minimal adverse affect is contradicted by the information in this comment and our previous comment as well as supporting materials and submissions by other agencies. And the assertion that it will be addressed through mitigation is wholly inappropriate as the mitigation proposed is obviously deficient.
- ✓ Wetlands -- – the assertion of minimal adverse affect is contradicted by the information in this comment and our previous comment as well as supporting materials and submissions by other agencies. And the assertion that it will be addressed through mitigation is wholly inappropriate as the mitigation proposed is obviously deficient.

It is shocking the Army Corps would be so misrepresentative in its characterization of the environmental harms of the Southport proposal – particularly when it has still failed to

undertake the NEPA process and provide itself with the information it would need to make such an assessment/claim.

#### Army Corps Joining Forces Against the Public

The Army Corps received an email from Jamie Davis within EPA stating “In light of the rash of activity recently from the riverkeeper regarding the Southport project, we are hoping to set up a meeting with you guys to make sure we are on the same page.” This effort to ensure the two agencies are working in concert against a public representative seems inappropriate at best. EPA and the Army Corps have two complementary but separate roles with regards to the Southport permitting and review process and should be undertaking their separate efforts with all due deliberation, regard and seriousness; not getting on the same page before the process has even begun.

The Army Corps and PADEP seem to be freely and quickly sharing all DRN communications with Weston Solutions and the PRPA. Were there any Right to Know or FOIA requests submitted to obtain this information? Helping the project sponsor track our every move without going through proper legal protocols, when at the same time not just requiring the public to go through those legal steps but redacting out information so as to limit what we get, is inequitable at best.

#### The requirements of NEPA are being dishonored and violated by the Army Corps already – the CWA public notice needs to be rescinded and the NEPA process fulfilled first.

NEPA is a planning statute that requires federal agencies, prior to taking a major federal action, to evaluate the impact of the action on the natural environment. *See* 42 U.S.C. § 4332. It emphasizes the importance of coherent and comprehensive upfront environmental analysis to ensure informed decision making, and to ensure that “the agency will not act on incomplete information, only to regret its decision after it is too late to correct.” *Marsh v. Or. Natural Res. Council*, 490 U.S. 390, 371 (1989).

The Army Corps is not fulfilling the goal and requirements of NEPA that Federal agencies are required to take a “hard look” at environmental consequences prior to a major action to integrate environmental consequences into the decision making process. *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n. 21 (1976) *Balt. Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 97 (1983). *Morris County Trust For Historic Pres. v. Morris County Trust*, 714 F.2d 271, 274-75 (3rd Cir. 1983). *See also Concerned Citizens Alliance, Inc., v. Slater*, 176 F.3d 686 (3<sup>rd</sup> Cir. 1999).

Here the Army Corps is proposing Clean Water Act decisionmaking on the discharge of dredged and fill material, and discharge of pollution into a waterway of the United States, i.e. the Delaware River, on a project that will affect a multitude of habitats and species including species that are threatened, endangered or proposed for Endangered Species Act listing without having first undertaken the NEPA review process. This backward application of the law is depriving the public and the environment of the reviews and protections they are entitled to and promised pursuant to law.

The Southport project proponents have created a document they have titled a draft environmental assessment. This document was not created by the Army Corps and has not

been the subject of public notice or review (DRN received it as the result of a file review request made to the State). This document was not part of the notice materials issued nor was it made generally available to the public. The document was created to respond to State assessment obligations and as such it “contains the information required on the Pennsylvania Department of Environmental Protection (PADEP) Environmental Assessment form.” As such, this project sponsor created assessment clearly contributes nothing to the fulfillment of the Army Corps’ NEPA obligation.

Furthermore, in addition to our concern about the order of the decisionmaking process, the Army Corps public notice clearly did not fulfill its NEPA public-information obligations – the Army Corps public notice did not disseminate or make available as much information as practicable or necessary for the public or other agencies to be able to fully assess the proposed project, its ramifications, its environmental impacts, its community impacts or the asserted need. Delaware Riverkeeper’s comments are based almost entirely on documents we obtained via other sources and means (file reviews, Right to Know requests and Freedom of Information Act requests) instituted by our own efforts and initiatives over many years; very little information was issued with the public notice that would allow for informed comment or consideration of the project by those receiving it.

#### Lack of Need Further Demonstrated

Documentation on the growing record further undermines any claims or justifications supporting the need for this port project that would inflict so much harm. In addition to the challenges raised in the Delaware Riverkeeper Network September 23, 2010 comment letter more information is now on the record to challenge the alleged need for this project.

The so-called environmental assessment document prepared by the project sponsors makes a number of assertions about shipping, and ports and the transport of goods upon which it asserts a claim of need. But its entire three and a half, doubled spaced pages not only provides minimal information, but does no more than list a series of bald-faced assertions that are totally unsubstantiated. The claim of need is merely a list of claims and assertions by the project sponsor with no independent information or verification to back them up. Attached please find a set of comments prepared by Dr. Bob Stearns regarding the claims of need and economic benefit in the sponsor created assessment of the project.

In its October 22, 2010 comment letter the National Marine Fisheries Service also questions the justification of “need” provided for the project. NMFS correctly notes that while the project proponent is making increasing claims that other ports will lack capacity in the future and that this now displaced traffic will come to Southport, there is no documentation or citations provided to support these claims. The project proponent entirely fails to acknowledge that other ports across the country are indeed developing plans and programs to ensure their future capacity and growth. In fact, according to the NMFS letter, not only has the Port Authority of New York and New Jersey developed a Comprehensive Port Improvement Plan to ensure its future capacity and growth (this is one of the ports Southport proponents claim will lack future capacity, thus forcing vessels to Southport), its plan has undergone the NEPA process, including public scoping and review. Clearly, the likelihood of this plan’s implementation is far greater than the speculative and unsubstantiated assertions made by Southport supporters to the contrary.

### Alternatives Analysis

The US Fish and Wildlife Service, in its comments dated September 23, 2010, noted numerous deficiencies in the alternatives analysis, as has the Delaware Riverkeeper Network and our colleagues, as well as other agencies who have commented on this project over the years. But despite the years of comment on this precise problem with the review and analysis of the project, the project sponsors have never sought to correct this major deficiency. The Army Corps must ensure a complete alternatives analysis, including appropriate consideration of the “no action option.” If this analysis is not done now it will have to be done as part of the NEPA process, which must occur prior to any permitting decision-making on this project regardless.

From the information we have provided as part of our previous comment, the “no action” alternative is clearly viable, as the project does not have a demonstrated “need.” Moreover, the USF&WS has the perspective that, if the project were to be constructed, there are other locations for the project and/or other ways to undertake it that would be less harmful. Clearly, a full range of alternatives to project location, methodology, and feasibility must be put forth and analyzed in full to meet current legal obligations.

Because project proponents have been unable to assert or substantiate a “need” for Southport and the tremendous environmental harm it will inflict on public resources, they have been unable to put forth a clear or credible project purpose. As so aptly stated by NMFS in its October 22, 2010 comment letter: “Without a clearly defined project purpose, it is not possible to develop a comprehensive analysis of alternatives.”

To the extent the project sponsor claims to have considered “alternatives,” its “alternatives” are merely 6 different configurations of the same project at the same site, all assuming in-water work. This does not begin to constitute a genuine alternatives analysis that provides the level of information and options necessary to make a truly informed choice and decision.

### Cumulative Effects

As we have reviewed additional materials associated with Southport it has become increasingly clear that the array of cumulative harms associated with the project have not been fully discussed and analyzed as required by law. We documented numerous deficiencies in our September 21, 2010 comment, and have found more we include in this document.

A factor in determining the significance of a federal action pursuant to NEPA is whether the action has a cumulative significant impact on the environment. 40 C.F.R. § 1508.27(b)(7). A cumulative impact on the environment results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.

Connected actions and unrelated but reasonably foreseeable future actions may result in cumulative impacts that require an EIS and should be evaluated in a single environmental statement. A project does not need a final approval to be “reasonably foreseeable,” for

purposes of cumulative effects analysis.

Impacts from the fill required to complete the port expansion are among the many effects that need to be assessed, but so too are the overall impacts caused by the change in shipping patterns and the cumulative affects to water, air quality, and aquatic species.

### Segmentation

This project is part of a larger development project called the Philadelphia Navy Yard Master Plan. NEPA requires analysis of direct and indirect impacts, and it requires a hard look at the whole project. Segmentation of project elements is not allowed pursuant to NEPA. And yet that is very definitely what is being attempted here and the Army Corps cannot legally permit it.

Further, this project is very much connected with the Delaware Main Channel Deepening project, the feasibility analysis provided with our previous comment documents the direct connection between the two, both in terms of planning, spoils to be used for construction, environmental impacts and more. The failure to consider the Main Channel Deepening in connection with Southport is another example of segmentation with this project.

### Clean Air Act

The Clean Air Act requires total direct and indirect emissions from an action be considered when assessing application of, and compliance with, the Clean Air Act. Project sponsors for Southport assert all kinds of increased port traffic induced by Southport to justify its need, and therefore its Clean Air Act analysis must take into consideration the air ramifications of that increased traffic.

The air impact consideration must include all foreseeable direct and indirect emissions. A foreseeable direct and/or indirect source of emissions comes from the spoil disposal plan which is based upon dumping of spoils at Fort Mifflin. This in turn will require project sponsors to remove an equal quantity of spoils from the CDF in order to make room for the incoming spoils. The emissions associated with transporting spoils to alternative locations in order to make room for the Southport spoils is a foreseeable direct air impact of the project that must be included, considered, and addressed as part of the project air conformity determination and associated documents, as it is a direct and ordered action emanating directly from the permitting and design of the Southport project and its spoil disposal plan.

### Water quality effects

The water quality effects of the project should be of great concern to the Army Corps which is given significant responsibility for protecting the quality of our waterways under the federal Clean Water Act.

According to the USF&WS, samples for sediments to be used in this project demonstrate “that contaminants are leachable from the sediments at concentrations that would pose unacceptable ecological risk to aquatic organisms.” This means that these sediments deposited should only be used in areas where they will not be inundated during high water events and in a manner that reduces their potential for leaching from precipitation.

Considering that spoils from this project are planned to be disposed of in the Fort Mifflin CDF it is very probable that the impacts USF&WS is concerned about will in fact occur.

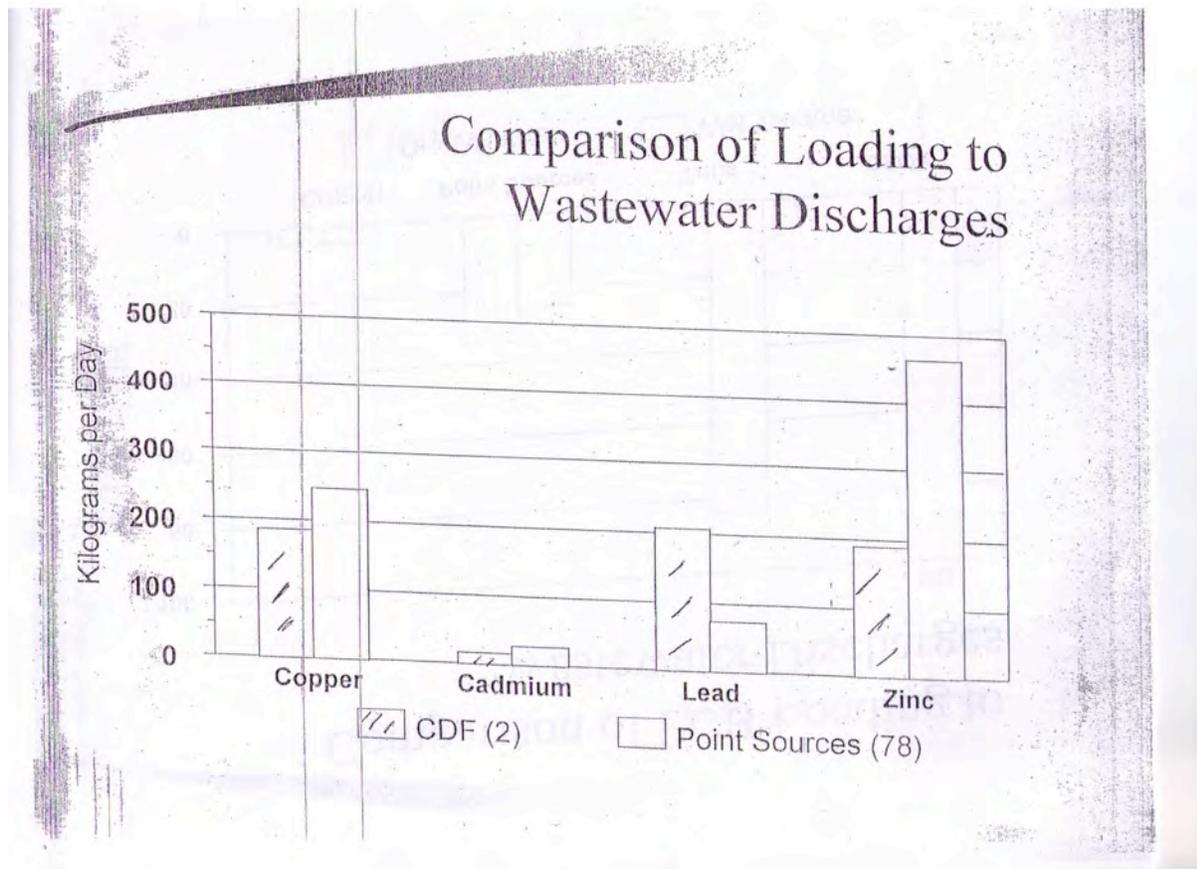
According to documents on the record the spoils from the Southport project are planned for the Fort Mifflin CDF. This is highly likely to result in water pollution and harm. Fort Mifflin has been shown to effectively dump pollution back into the River from sediments disposed there rather than filtering it out prior to discharge.

Dr. Thomas Fikslin with the Delaware River Basin Commission (DRBC) conducted a review of the overflow from confined dredge disposal areas associated with dredging projects in the Delaware estuary. Dr. Fikslin analyzed data from two existing dredge spoils disposal facilities -- Money Island and Fort Mifflin. These areas receive sediments and water from Delaware River dredge operations. Sediments settle out in the area and the water is returned to the estuary. According to Dr. Fikslin's findings, these two CDFs, independently and collectively, are a significant source of toxic pollution to the Delaware River. The findings demonstrate that these particular facilities do not effectively remove contaminants from the discharge water that goes back into the River. Among the toxics discharged to the River during the de-watering process at these facilities are Cadmium, Lead, Copper, Zinc and total suspended solids. In some instances, the discharge concentration exceeds the DRBC's acute and/or chronic criteria, although the DRBC criteria are for dissolved metal.

For example, the following discharges were identified at the two sites:

	<b>Money Island (total)</b>	<b>Fort Mifflin (total)</b>	<b>Acute Criteria</b>	<b>Chronic Criteria</b>
<b>Metals (ug/liter)</b>				
Lead	268.1	242.0	48	16
Copper	229.7	76.7	13.3	9.1

According to Dr. Fikslin the two disposal facilities are the eighth largest discharger to the estuary and in the case of lead discharge more lead than all 78 point source dischargers to the estuary combined. (See chart below)



*Overhead slide from  
Dr. Tom Fikslin Presentation  
Nov. 4, 1998 at DRBC offices in  
West Trenton, NJ*

Dr. Fikslin also found that these CDFs are a source of DDE to the River, and a potential source of PCBs that have been documented in the sediments of the estuary. According to Dr. Fikslin: his preliminary evaluation "indicates that CDFs have the potential to impact aquatic life through acute and chronic toxicity, and human health through the bioaccumulation of organic compounds such as PCBs and DDX."

This research regarding the contaminants emanating from Fort Mifflin CDF operations, coupled with the findings of the USF&WS, demonstrate the highly significant threats to water quality posed by Southport.

According to NMFS additional water quality concerns include "turbidity through the resuspension of sediments into the water column from dredging and port operations" degrading water quality, lowering dissolved oxygen levels, and potentially releasing "chemical contaminants bound to the fine-grained estuarine/marine sediments."

Alterations to sedimentation and wave patterns caused by vessels entering and exiting the mooring area could also increase turbidity. “Suspended sediments mask pheromones used by migratory fishes, and can smother immobile benthic organisms and demersal newly-settled juvenile fish.” (NMFS 10/22/2010) This is a particular concern for this project because its proposed location is an area that provides habitat, spawning and nursery habitat for commercially and recreationally valuable fish species as well as species listed or proposed for listing under the ESA. Decreased water circulation can also adversely affect striped bass survival because “strong current is needed to keep the eggs suspended in the water column and prevent them from being smothered by silt.” (NMFS 10/22/2010)

#### Dredge/Fill Material in the River

The Clean Water Act and implementing regulations and guidance are clear that when there is a practicable alternative that would inflict less harm on the environment and aquatic ecosystems, that alternative should be chosen. Discharges of dredge or fill material are not allowed if there will be a detrimental effect on critical habitat for endangered or threatened species; if it will result in or contribute to the significant degradation of the waters of the US; or if there are other appropriate or practicable steps that can be taken to minimize potential adverse impacts of the discharge to the aquatic ecosystem.

No Clean Water Act permit should issue for this project based on the information available, which is too limited in the first place, but which also, to the extent we have it already, demonstrates significant harms to the Delaware River, its quality, ecosystems and aquatic life.

The work has not been done to fully assess what other options are available that would avoid harm, or minimize harm, to water quality, aquatic ecosystems, or threatened or endangered species from the Southport project.

We submit for the record documents from experts discussing the historic effect of Delaware River dredging projects on sediment transport and wetlands erosion. This project involves a large volume of sediment removal and dredging – 35 acres to be dredged and anywhere from 1,008,000 to 1,306,000 cubic yards of river bottom sediment to be disturbed and removed. The cumulative effects of this new dredging activity and sediment removal initiative coupled with past dredging projects, and anticipated projects nearby such as the Philadelphia airport project that includes dredging of 37 acres of riverbottom, needs to be thoroughly and publicly assessed.

#### Atlantic Sturgeon

This reach of the Delaware River has been indicated as important for Shortnose sturgeon that is listed as endangered and/or for Atlantic sturgeon that are currently proposed for listing as endangered (see information provided in our previous comment dated September 21, 2010).

Impacts to Atlantic Sturgeon have not been adequately addressed. This deficiency is even more dramatic in light of recent events – i.e. the proposal of the National Marine Fisheries Service of the Department of Commerce to list Atlantic Sturgeon in the Delaware River as endangered.

The Atlantic sturgeon, *Acipenser oxyrinchus oxyrinchus*, is a large, long-lived, late-maturing, slow-reproducing migratory fish that spawns in rivers such as the Delaware and migrates to the ocean and back again. Mature adults of this anadromous species may live as long as 60 years, reach lengths up to 14 feet, and weigh over 800 pounds. With its long snout and distinctive armor-like plates, this ancient fish may look as tough as a dinosaur but in reality is vulnerable to a number of human-caused threats that have drastically depleted its numbers, including over-fishing, habitat destruction from activities such as dredging, vessel strikes, and water quality degradation.

On October 6, 2010, NMFS published a proposed rule to add the Atlantic sturgeon to the federal Endangered Species Act. (National Marine Fisheries Service, Proposed Listing Determinations for Three Distinct Population Segments of Atlantic Sturgeon in the Northeast Region, 75 Fed. Reg. 61,872 (Oct. 6, 2010).) NMFS proposed for listing as endangered or threatened under the Endangered Species Act, 16 U.S.C. §§ 1531 *et seq.*, five distinct population segments (DPS) of Atlantic sturgeon. NMFS explicitly found that “[T]he loss of any of the discrete population segments would result in a significant gap in the range of Atlantic sturgeon, and negatively impact the species as a whole, given the strong natal homing behavior of the species.” (emphasis added).

Atlantic sturgeon are known to spawn in the Delaware River, although there may be fewer than 300 spawning adults per year in this subpopulation according to NMFS. *Id.* at 61,897. Other experts as noted in our previous comment are concerned there may be fewer than 100 Atlantic Sturgeon in the Delaware. NMFS found that vessel strikes, dredging, filling, and degraded water quality pose significant threats and so proposed to list the New York Bight (NYB) DPS, which includes the Delaware River subpopulation, as endangered. *Id.* NMFS found that the Delaware River spawning group is essential to the survival of the NYB DPS, as its loss “would result in loss of spatial structure for the DPS as well as numbers of fish to support spawning.” *Id.*

According to the listing proposal issued by NMFS the Atlantic sturgeon range is threatened/affected by dredging and effects to water quality including dissolved oxygen levels, water temperature, and contaminants. The proposed Southport project will entail significant levels of dredging as well as significant water quality effects (including DO affects through removal of the water celery important for contributing oxygen to the water and introducing contaminants with resuspension of sediments and through disposal in the Fort Mifflin CDF known to be a discharge of contaminants from the sediments disposed of there).

The proposed listing specifically identifies dredging as a factor in the destruction, modification, or curtailment of the Atlantic sturgeon’s habitat and range. “Environmental impacts of dredging include direct removal or burial of organisms, elevated turbidity or siltation, contaminant resuspension, noise or disturbance, alterations to hydrodynamic regime and physical habitat, and loss of riparian habitat.” *Id.* at 61,882. NMFS further found:

Dredging and filling operations can impact important features of Atlantic sturgeon habitat because they disturb benthic fauna, eliminate deep holes, and alter rock substrates necessary for spawning. Deposition of dredge sediment has been shown to affect the distribution of Atlantic sturgeon. Dredging can also result in direct takes (killing and injuring) of Atlantic sturgeon. Such takes have the potential to affect the range of Atlantic sturgeon. *Id.* at 61,883 (citations omitted).

NMFS, in its October 22, 2010 letter about the Southport project said “In-water construction activities can affect Shortnose and Atlantic sturgeon through direct injury or mortality, displacing species from the area, or by altering the habitat and destroying forage items.”

The ramifications of vessel strikes on sturgeon, despite the fact that vessel strikes pose significant threats to the Atlantic and Shortnose Sturgeon species, have not been considered. NMFS has determined vessel strikes to be a “significant threat” to the New York Bight DPS of which the Delaware population is a part. The change in traffic patterns and vessel traffic on the Delaware River for Southport with both a 40 foot and a 45 foot channel were not part of the record provided with the public notice for review and comment, and certainly have not been included in any NEPA analysis.

The harm to Atlantic and Shortnose sturgeon has not been sufficiently addressed through any of the project materials placed on the public record to date. These harms demonstrate the need for a full EIS as well as full ESA compliance and mandate the denial of the Clean Water Act permit in question.

#### American Eel

American Eel are found, according to the US F&WS, within the stream channel, carrying stormwater, that is within the Southport project’s boundaries and will be acted upon as part of this project.

American eel is a slow maturing and long-lived species that spends 8-30 years in estuary and freshwater streams, before returning to the Sargasso Sea, the same place they were born, to spawn as “silver eels” in the late summer and fall. While females produce millions of eggs, American eels reproduce only once in their lifetime and die after they spawn. The life history of the species, such as late age of maturity and a tendency for certain life stages to aggregate, can make this species particularly vulnerable to decline.

Young American eels return to their estuaries in a stage where they are referred to as glass eels. In all of its life stages, eels serve as an important prey species for many fish, aquatic mammals, and fish-eating birds. Although fisheries are a fraction of what they were historically, eel support valuable commercial, recreational, and subsistence fisheries and are an important part of the ecosystem. Loss of nearshore habitat destruction will have deleterious impacts on American eel.

While further study is needed, chemical contamination of American eel is known to occur and could be associated with an increased incidence of disease and reproductive impairment. Because eel are long lived, their exposure to endocrine disrupting

contaminants could affect their sexual development, maturation, fertility and fecundity (ability to reproduce). Because there are concerns about the sediments associated with the Southport project, consideration of the ramifications of pollution from sediments and project induced runoff and its effects on American eel is needed.

Dissolved oxygen levels have been found to affect American eel. Dissolved oxygen (DO) has been found to be a strong predictor of the distribution of American eel. In North Carolina high catches of American eel regularly occurred in waters with DO levels above 4 mg/L. In the Chesapeake Bay, VA, 82% of American eel caught were in waters with DO levels between 5 and 9 mg/L. One of the concerns expressed for the Southport project and discussed in our previous comments has to do with the removal of subaquatic vegetation (SAV) that is an important source of oxygen in the River. The Philadelphia reach of the river continues to experience low oxygen levels, so much so that there is a question about its ability to support fish propagation. The failure to evaluate the destruction of SAV and the effects this will have on oxygen and American Eel as well as other fish species is a significant shortcoming of the review and consideration of the Southport project to date.

As mentioned in our previous comment, according to a 2004 Normandeau Associates report done for the project (Aquatic and Benthic Resources Study for Assessment and Improvements to Berthing Area South Port Project No. 03-149.S prepared by Normandeau Associates March 2004), aquatic vegetation found in the proposed project area “is important ... as a source of dissolved oxygen for the water. Vegetated intertidal and shallow subtidal habitat is not common along the Delaware River Philadelphia waterfront and should be considered ecologically important along this shoreline.”

The USF&WS, in its Sept 26, 2010 letter sent to the Corps also discusses the ecological and historic value and role of American eel within the Delaware River and states its interest in “protecting and enhancing the abundance of American eel in these inland waters [referring to Delaware River tributary streams] so those contributions may continue and increase. This can be accomplished by protecting, restoring and enhancing the habitat suitability and access for eels in the watershed, including the stormwater (stream) channel located on the project property.” This issue of the importance of the stream channel on site for American eel was raised multiple times during discussions about the project with agencies prior to this public notice, and yet the project sponsors have continued to ignore the issue. It is incumbent on the Army Corps to ensure this deficiency is remedied in considering whether this project could or should move forward as is or in some modified form.

#### Adverse Environmental Impact

The list of fish species that use the region of the River and its shoreline affected by Southport is significant and includes:

- ✓ alewife
- ✓ blueback herring
- ✓ American shad
- ✓ striped bass
- ✓ yellow perch
- ✓ hickory shad

- ✓ banded killifish
- ✓ mummichog
- ✓ American eel
- ✓ Atlantic herring
- ✓ Atlantic menhaden
- ✓ Bay anchovy
- ✓ gizzard shad
- ✓ hogchoker
- ✓ white perch
- ✓ Atlantic silverside
- ✓ Atlantic sturgeon
- ✓ shortnose sturgeon

Striped bass eggs, according to NMFS, have been found to be most abundant between Wilmington, DE and Philadelphia. American Shad are also shown to spawn this far down in the Delaware River.

Many of the species listed, including blueback herring, alewife, American shad and hickory shad are species of concern for NMFS – these “are species about which NMFS has some concerns regarding status and threats, but for which insufficient information is available to indicate a need to list the species under the Endangered Species Act.”

According to the ASMFC American shad stocks are at an all time low. Declines are the result of a combination of overfishing, pollution and habitat loss. Although during the 19<sup>th</sup> century annual American shad harvests reached over 50 million pounds, today they are in the 1 to 2 million pounds range coastwide. The ASMFC believes that the Delaware River population is greatly depressed – so much so that it has created a shad management plan to focus on the species’ recovery and restoration. To the extent Southport further impedes the protection and restoration of the shad populations of the Delaware River it is working at cross purposes with both the ASMFC and NMFS, and is undermining the protection and restoration of a species vital to the ecology, economy, recreation, and culture of our region.

According to research cited by NMFS, juvenile striped bass prefer nearshore habitat to offshore habitat. To the extent that Southport will damage and destroy large swaths of nearshore habitat, the effects to striped bass will be significant. Similarly, white perch are generally found in shallow water (usually not deeper than four meters). The construction of Southport will result in damage and destruction to large swaths of habitat at this critical depth range. The project as proposed will result in the “permanent loss of 12.3 acres of intertidal and subtidal shallow water habitat including mudflats, a special aquatic site under the Clean Water Act, and more than an acre of SAV dominated by wild celery.” Additionally, more acreage is to be damaged by dredging and subject to shading – further diminishing or eliminating this habitat for species that rely upon such areas.

Fishery habitat is shown to be poor (according to the NMFS Oct 22, 2010 letter) when located under large, pile-supported structures. Therefore, the assertion that, because acreage subject to this outcome for Southport is not filled in, it is therefore not harmed or

diminished for aquatic life use is entirely false. Harms to fish species in such areas result from reduced light, increased turbidity and reduced water circulation.

Asiatic clam, a food source for Shortnose sturgeon, is found in the proposed development site of Southport. Food for other species are also found at this location including Gammarus, polychaete worms, chironomus, and blood worms – known to be prey for striped bass, American shad and blueback herring. This caused NMFS to conclude that the Southport development site is one that supports prey species and provides forage habitat for fish. Similarly, Weston, the project consultant, concluded that “Based on the range of substrate type and the diversity and abundance of macrobenthic invertebrates present in the study area and the results of fish surveys, the macrobenthic invertebrate community at the proposed Southport Development Project provides a significant source of forage for fish utilizing the site.” (draft “environmental assessment” prepared by project proponents, 2010)

Additionally, young of year for many of these species were found in the dredge footprint of the project, adding the harms of direct or indirect effects from dredging to the broad array of harms and concerns raised by the Southport Project and, to date, insufficiently addressed in the purported environmental analysis of the Project.

According to the USF&WS September 26, 2010 letter – this site has the potential to support 33 mammalian species (2 species were observed), 60 bird species were documented to occur in the site (including osprey and bald eagle), and there has been documented use of the site by at least 6 herpetile species.

Among the negative effects that have not been adequately considered or addressed is the degradation of the shallow water habitat along the southern shoreline of the site. According to NMFS (Oct 22, 2010 letter), this shallow water habitat “will be degraded as a result of the sedimentation and increased wave action due to the construction and operation of the marine terminal. “

Impingement and entrainment of the variety of species discussed in this comment due to the intake and discharge of ballast water will be significant. The intake of millions of gallons of ballast water from the River as a result of the commercial vessels coming into Philadelphia due to this project “will entrain early life stages of commercially and recreationally important fish” including American shad, alewife, blueback herring and striped bass. The cumulative effects of this impingement and entrainment need to be considered in conjunction with the impingement and entrainment that already occurs at existing cooling water intakes operating in the Delaware Estuary and River including, but not limited to, the Salem Nuclear Generation Station, Eddystone 1-4, Delaware City facility, Edgemoor 104 and 5, Hope Creek facility, Sun’s Marcus Hook facility, the Paulsboro facility in NJ, Dupont Edgemoor in DE, and PP&L Martins Creek facilities, to name a few. These facilities kill billions of fish via impingement and entrainment, and the additional impingement and entrainment that will be caused by Southport must be analyzed and considered in this context.

### Mitigation

According to the USF&WS letter of September 26, 2010, the mitigation proposed by the applicant does not fulfill the requirements of the law, does not mitigate for the various kinds and quality of environmental harms to be inflicted by the project, and does not provide the quantity and quality of information necessary to evaluate the mitigation offering. Clearly there is not enough information available to properly consider or assess this project pursuant to NEPA or otherwise.

NMFS too in its October 22, 2010 letter challenges the proposed mitigation stating that it does not offset the impacts to NOAA trust resources. NMFS further, and rightfully, concerned that the mitigation is focused on the conversion of one type of aquatic habitat into another type of habitat – e.g. “the restoration of wetlands and the filling of existing subtidal aquatic habitat to create shallower aquatic habitat.” This is of particular note and concern when, as is the case here, the original habitat has “value to aquatic life.” The project proponents propose not to provide new habitat to make up for the habitat being destroyed, but simply moving the parts around and changing the type of habitat available – resulting in a net loss of habitat contributing to the health and vitality of the aquatic life and ecosystems that are public trust resources. Additionally, the amount of activity proposed “is not sufficient to provide even a 1:1 ratio for mitigation.”

NMFS mitigation ratio requirements generally are: 2:1 for creation/restoration; 3:1 for enhancement and for SAV impacts; 27:1 for preservation.

According to the information provided in our previous comment, as well as that now provided by the USF&WS and NMFS – the Southport mitigation offering cannot pass the straight face test.

### State permitting information

Among the information recently received from the Army Corps in response to a FOIA filed by the Delaware Riverkeeper Network was information filed with the Pennsylvania Department of Environmental Protection (PADEP) about the Southport Project. Therefore, it is our assumption and expectation that these documents are part of the official Southport file and so we don't need to make new copies for you to include in the record as they are already part of that record (please contact us immediately if this assumption is incorrect so we can copy and send back to you copies of all of the documents you sent to us). There are numerous concerns about the information in this packet filed with the State that need to be addressed. Because you have this information in the Army Corps files, we presume that you relied at least in part on this information when considering the project to date and so we address here the concerns we have about these materials.

Page 3 of the application materials asks whether the project is funded by state or federal grants. The response marked is “no”. We question whether this is accurate as all press reports to date talk about Southport being funded by the Commonwealth of PA.

The state application materials assert that, because there is no increased flood risk to immediately adjacent properties, and because dredging within the river will be removing a

volume of sediment greater than what will be placed within the floodplain, the “impact associated with the loss of floodplain area as a result of development of the property is anticipated to be negligible considering the amount of floodplain area associated with the large-scale river system and the design requirement of no net fill considering the dredged material volume.” (See pp. 1 & 2 of Project River Hydraulics Narrative) This assertion fails to recognize the values of a vegetated floodplain and healthy floodplain soils for pollution prevention and habitat. Moreover, it fails to consider the fill that is going to be placed within the River, over 12 acres. To simply discuss what is being taken out of the River and placed on the “landside portion of the site” without discussing what portion of the River is being filled by this project is not only misleading, but also a violation of the intent, spirit and requirements of federal and state laws and regulations on floodplain protection and no net fill.

The state public notice asserts that only 3.62 acres of fill is to be placed in the River. This is not only inaccurate but intentionally misleading. 9.41 acres of intertidal/sub-tidal wetlands will be filled by this project in the Delaware River. Thus, an accurate quantity regarding fill into the River would be the total of the two numbers, i.e. 13.03 acres. In fact, even the project sponsor’s own environmental assessment document says the project will require 13 acres of River fill. (See page ES-3)

The post construction stormwater plan is focused on grading and constructing the site to convey stormwater directly into the River. Based on the state of the science and engineering on stormwater management, this is an inappropriate first strategy. The project should be focused on infiltration, wet ponds with native vegetation, filtering strips vegetated with native plants that can both cleanse pollution from runoff and encourage infiltration, and so forth. But a strategy focused on direct discharge – whether by pipe or overland flow, is not in keeping with the spirit or letter of our stormwater and water quality regulations. It appears that only about 1/3 of the site is going to be filtered through an infiltration system of some sort. And as we read it, it appears as though this area is going to be well-used by the port operations thus minimizing the level of infiltration and pollution prevention that could be achieved by other approaches in combination with, or in lieu of, this one.

The PADEP permit application materials say that only 10 acres of waterbodies are affected by the project and no wetlands. This clearly contradicts all other information in the materials for this project. Page 17 of Appendix A.

While the July 2010 application materials discussing mitigation assert that a review of alternative sites preceded selection of the Southport site – this false claim is belied by the documents and comments provided by Delaware Riverkeeper Network and our colleague organizations previously in this comment and elsewhere on the record and in discussions about the project. Clearly Southport was selected first and justification was made later, with the no-action alternative not receiving due consideration as required by law, or common or fiscal sense.

The PADEP application materials asserted that this reach of the River is not listed on the Clean Water Act 303(d) list of impaired waters. But in fact the estuary is listed as impaired

for PCBs and there have been extensive efforts to address PCB loadings into the River. There is extensive knowledge that contaminant levels are higher in shallow water sediments and that PCBs are harbored in Estuary sediments and can be resuspended into the water column as the result of dredging and disposal of spoils. The Fort Mifflin CDF where the spoils are to be disposed of is known as a source of PCB pollution to the Delaware River, as noted earlier in this comment. Analysis of the reintroduction of PCBs from this project should be receiving significant attention. The PCB issue must be thoroughly addressed as it is a significant source of contamination for fish in the Estuary, mandating the institution of an array of fish advisories for a number of species resulting in advisories to either limit or cease consumption of such fish. Increasing the levels of PCBs in the water column and, as a result, in the fish of the Delaware Estuary is an effect that must be carefully analyzed from an environmental, human health, and recreational ecotourism/economic perspective.

The July 2010 draft mitigation plan mentions rare, threatened and endangered species that are present and at risk from this project. After consulting with state and federal agencies the list includes: bald eagle (state threatened), Shortnose sturgeon (*Acipenser brevirostrum* – federal and state endangered), Red belly turtle (*Pseudemys rubriventris* – threatened), Eastern mudminnow (*Umbra pygmaea* – potential candidate), field dodder (*Cuscuta pentagona* – proposed threatened), bugle weed (*Lycopus rubellus* – endangered), velvety panic-grass (*Panicum scoparium* – endangered), forked fush (*Juncus dichotomus* – endangered), and Atlantic sturgeon (*Acipenser oxyrinchus* – federal species of concern and now proposed for listing as endangered in the Delaware River). As of July this list is extensive, and yet in the Army Corps materials and even the PADEP materials there is relatively little discussion about how these species will be harmed by the project, to what degree they will be harmed and what that harm translates into in terms of their population status, and how that harm could and would be avoided. This analysis and investigation does not fulfill the level of attention and detail mandated by the law for rare, threatened, endangered and candidate species under state and federal law.

While the state permit application materials discuss mitigation, the mitigation proposed for this project falls far short of what is needed to mitigate for the habitat harms to be inflicted. The proposal fails to discuss the ramifications for the wide array of rare, threatened, endangered and candidate species that would be affected by the project.

We further note that it is not appropriate for the state permitting application to have draft mitigation plans. The applicant needs to create and propose its own mitigation plan. A draft of what the project proponents might do (or might not do), and that speculates about what might be possible (or might not be possible) is not appropriate for State or federal decision-making purposes.

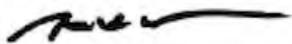
It is not appropriate that the sustainability of any mitigation project be foisted on the shoulders of an already underfunded state agency such as PA DCNR, as is proposed by the mitigation draft plan. Programs and funds must be put in place to insure sustainability and maintenance, including for an invasives removal initiative to mitigate this major threat to habitat and ecosystems.

The project sponsor's environmental assessment proposes the project will require dredging of 35 acres of the river bottom to a 42 foot depth, but then says that it may include dredging to the 47 foot depth. Were all project analyses and information based upon the 42 foot depth or 47 foot depth? If 42 then this project needs to be totally reassessed to the 47 foot depth level as that is what is ultimately being sought and planned for.

It is significant that in May 2007 Versar concluded that the affects of industrial development and shipping traffic were so significantly affecting aquatic vegetation that they didn't find much if any present; but later in June 2010 studies identified 1 acre of slip area with established SAV at the project site largely dominated by wild celery, as well as finding patches of Musk grass and algae species intermixed with wild celery in patches along the eastern shore of the Navy Yard property. It shows that the earlier data collection upon which much of the project sponsor's environmental assessment is based is dated and inaccurate. It is also a demonstration of either incompetence in 2007 or a dramatic rise in the health of this reach of the River for aquatic vegetation and therefore associated fish and water quality. If the latter is the case then it is even more important that this reach of River be protected and that this burgeoning population of SAV and all the benefits it brings be protected so that it can continue to grow and spread bringing more health and habitat to this reach of the River that has been so degraded by past development and practices.

Continuing characterizations that the habitats and vegetation at the Southport site, in water and on land, are to be dismissed and viewed as expendable because some of them are infected with invasives or impacted by other harms is inappropriate. That a habitat has been harmed by past bad practices does not support an argument that it is expendable. In a reach of the River such as this, where habitat is at a premium because there is so little of it, its importance and value is magnified, and rather than be using "degradation" as an excuse for total decimation, it actually makes the case for active investment in restoration.

Respectfully,



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Jeff Tittel, Director  
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Mark Martell, President  
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Amy Goldsmith, Director  
NJ Environmental Federation

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National Wildlife Federation

Captain Robert V. Martin  
U.S. Navy Ret.

Attachments:

- ✓ Series emails, subject “RE: EFH Coordination” with most recent dated August 20, 2010
- ✓ Emails, subject “RE: EFH Coordination” most recent dated August 19, 2010
- ✓ Email, subject “Southport Project” dated July 26, 2010
- ✓ Correspondence from PIDC to Army Corps dated Sept 22, 2010 supporting characterization that Southport part of a larger project and should not be segmented off.
- ✓ EFH Assessment Worksheet prepared by Ed Bonner, Army Corps of Engineers, Aug 5, 2010
- ✓ Comment letter from Delaware Estuary program discussing impacts of dredging and deepening on the Delaware Estuary, its sediment budget and marshlands.
- ✓ [Atlantic States Marine Fisheries Commission: American Eel](http://www.asmfc.org/americanEel.htm) -- <http://www.asmfc.org/americanEel.htm>
- ✓ Letter report from Robert N. Stearns, dated November 1, 2010.
- ✓ Computer disc containing 1997 SEIS for Delaware River Main Channel deepening project and 1992 EIS for Delaware River Main Channel deepening project
- ✓ 2009 Environmental Assessment Main Channel Deepening project
- ✓ Economic Update for FY 2011 Budget, Delaware River Main Channel Deepening project, dated December 2009
- ✓ Comprehensive Reanalysis Corrected Errors, but Several Issues Still Need to be Addressed, GAO report March 2010, GAO-10-420