



September 4, 2012

Michael Anderson
New York State Department of Transportation
4 Burnett Boulevard
Poughkeepsie, New York 12603
VIA ELECTRONIC MAIL

Re: Riverkeeper, Inc. Comments on the Final Environmental Impact Statement for the Tappan Zee Hudson River Crossing Project

Dear Mr. Anderson:

Please accept the following comments on behalf of Riverkeeper, Inc. (Riverkeeper) on the Final Environmental Impact Statement (FEIS) for the Tappan Zee Hudson River Crossing Project, released August 1, 2012.

Riverkeeper incorporates within this comment on the FEIS its comments submitted March 30, 2012 on the Draft Environmental Impact Statement (DEIS) and hereby reserves all legal rights relating to, and arising from issues we previously raised in those comments, but do not include here.

The FEIS is insufficient because it does not fully address the numerous, significant concerns raised by Riverkeeper in its comments to the DEIS, including the lack of an adequate alternatives analysis, and inadequate assessment of impacts to endangered species and aquatic ecology and habitat that would result from this project. The FEIS also does not remedy the DEIS' failure to fully consider avoidance of such impacts, and mitigation measures to address unavoidable impacts. In addition, the timing of the issuance of the FEIS demonstrates the state's intention to move forward without adequate public participation. For example, the fact that the FEIS has been issued before the construction bids have been released to the public, or a bidder has been selected, ignores the possibility that the detailed bridge construction proposal could result in different environmental impacts that have not been assessed in a process the state now deems complete. Once the FEIS is finalized and a Record of Decision (ROD) and findings pursuant to New York's State Environmental Quality Review Act (SEQRA) are made, the public will no longer have an opportunity to provide formal input to the state regarding this project. Considering the fact that this is the largest public works project in the Hudson Valley in decades that will have short and long term impacts on the Hudson River and the region as a whole, it is crucial that the public is afforded a democratic, transparent process that provides every opportunity for meaningful participation prior to the project's approval.

Riverkeeper notes that our concerns regarding the adequacy of the DEIS, and now the FEIS, are consistent with significant concerns raised by the U.S. Fish and Wildlife Service (USFWS) in its comments on the DEIS. In a March 1, 2012 letter to the National Park Service that incorporates its comments on the DEIS included here as Exhibit 1, USFWS expresses concern that the DEIS does not meet the requirements of NEPA and calls on the state to prepare a supplemental EIS. "We are also concerned that the...lack of detail may not fully meet the requirements of the National Environmental Policy Act (NEPA)...In order to fully comply with NEPA and to fully inform the public of all relevant environmental impacts, we recommend that the FHWA commit to the preparation and publication of a supplemental EIS once all pertinent details become known and prior to final decision-making."¹ Riverkeeper supports the comments of the USFWS regarding the adequacy of the project's NEPA review and the need for a supplemental EIS, particularly since the concerns raised by USFWS and Riverkeeper regarding public participation and the sufficiency of the environmental assessment in the DEIS have not been addressed adequately in the FEIS.

For the reasons set forth in its DEIS comments and reiterated herein, as well as the following additional comments on the FEIS, Riverkeeper hereby requests that the state withdraw the FEIS and prepare a Supplemental draft EIS that includes a revised alternatives analysis, revised assessment of in-river impacts on endangered Atlantic and shortnose sturgeon and a complete analysis of the impacts of demolishing the existing bridge.

Insufficient Alternatives Analysis

Despite the public's interest in examining the Tunnel, Rehabilitation, and Single Structure alternatives, both the DEIS and the FEIS only presented two alternatives to this Project: the No Build Alternative and the Replacement Bridge Alternative.² In the comments on the DEIS, Riverkeeper raised the need to consider and analyze these viable alternatives to the Project; however, the FEIS continued to dismiss these alternatives.³ The DEIS, and FEIS also fail to include an assessment of a new single or double span bridge with mass transit as a reasonable alternative. Dismissing viable project alternatives before conducting a full study of their impacts, costs, and benefits compared to the project proposal does not constitute a meaningful alternatives analysis, as required by both the National Environmental Policy Act (NEPA) and New York's State Environmental Quality Review Act (SEQRA). The fact that the Project sponsors have put forth an ad hoc rationale for why they chose to dismiss these three Project alternatives does not excuse them of their legal obligation to conduct a complete analysis that takes the requisite "hard look" at the impacts and possible mitigation measures of all these alternatives equally.

Furthermore, there remains no plan for the incorporation of a mass transit system on the bridge and no analysis of the impacts of building a new crossing with mass transit. The state rejects the inclusion of mass transit on a new bridge[s] and excludes it from further analysis primarily for cost reasons, despite the fact that the DEIS and FEIS do not contain detailed cost estimates for different types of mass transit that could be implemented on a new crossing.

¹ Letter to National Park Service from United States Fish and Wildlife Service, sending Final Comments on Draft Environmental Impact Statement (DEIS) for the Tappan Zee Hudson River Crossing Project 87/287, Rockland and Westchester Counties, NY (March 1, 2012) at 2. (See exhibit 1).

² See TAPPAN ZEE HUDSON RIVER CROSSING PROJECT FINAL ENVIRONMENTAL IMPACT STATEMENT AND SECTION 4(F) EVALUATION (August 2012), Section 2-2 [hereinafter FEIS].

³ FEIS, Section 2-3.

Project Constitutes Illegal Segmentation

Several commenters on the DEIS—Riverkeeper included—raised the issue that the environmental review process for this Project is being segmented.⁴ The FEIS does acknowledge these comments; however, the lead agencies have still not studied all of the cumulative impacts of related future projects that should be considered in conjunction with the current project (e.g., the construction of mass transit, potential future improvements to adjacent highway segments, and demolition of the existing bridge).

Demolition of the existing Tappan Zee Bridge constitutes one of the actions that will be undertaken as a direct result of constructing the new bridge. Therefore, the Environmental Impact Statement for this Project must fully consider the impacts of this action. The FEIS's expansion of the DEIS's discussion of demolishing the existing bridge contains very little new information on the actual effects of demolition, though.⁵ Most of the additional information found in the FEIS refers to the processes that will be used during demolition, as opposed to the anticipated impacts on the Hudson River and surrounding communities.⁶ In addition, the FEIS fails to adequately assess ways to avoid, minimize or mitigate such impacts.

Failure to Study Various Environmental Impacts

Riverkeeper is very concerned about the fact that this Project has been designated to receive a fast track review at the federal level. This rush to complete each step of the mandatory review process as quickly as possible has not allowed for a proper analysis of all the immediate, long-term, and cumulative impacts of this Project. This rushed review process has effectively resulted in the mere *appearance* of an environmental review process, as opposed to a properly conducted and adequately supported study.

For example, the FEIS includes a discussion about the alternatives to dredging, as Riverkeeper requested in its comments on the DEIS; however, the explanation provided for why the alternatives to dredging have been dismissed is very brief and still does not fully weigh the costs and benefits of these dredging alternatives.⁷ As Riverkeeper stressed in its comments on the DEIS, the harmful effects of performing dredging in this area of the Hudson River are extensive. Dredging will cause disturbances to the endangered shortnose and Atlantic sturgeon, the loss of benthic macroinvertebrates and their habitat, and the resuspension of PCBs, metals, and other hazardous materials located in the river sediments. The FEIS fails to fully consider these impacts, or to fully examine measures to avoid them or mitigate them if necessary. For example, the use of a full length trestle platform, as an alternative to dredging, has been dismissed because the lead agencies have found it would be too expensive to install the pile foundations of a trestle, due to the soil conditions in this area of the River.⁸ However, these monetary costs have not been weighed against the environmental costs of performing extensive dredging. A proper review process should fully take into consideration the costs and benefits of different project alternatives. Simply dismissing an alternative to dredging because of the projected costs, without

⁴FEIS, Section 24-2-3.

⁵ FEIS, Section 18-3-8.

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

simultaneously considering the countervailing environmental impacts or benefits, does not constitute a proper environmental review.

Riverkeeper reiterates the significant concerns stated in its comments on the DEIS that the environmental impact review conducted for the Project fails to adequately consider and characterize the impacts to the Hudson River ecosystem, including to endangered shortnose and Atlantic sturgeon. In our comments on the DEIS, Riverkeeper called for the preparation of a supplemental draft EIS once the National Marine Fisheries Service (NMFS) had completed its Biological Opinion (BO) assessing the impacts to these endangered species, so that the public would have the opportunity to provide informed comments on these impacts prior to the issuance of the FEIS. Riverkeeper also raised significant questions regarding the validity of the underlying scientific studies conducted as part of the Aquatic Sampling Program (ASP) and Biological Assessment (BA) that were submitted to the National Marine Fisheries Service ("NMFS") as part of its Section 7 Endangered Species Act consultation.

Since the comment period on the DEIS closed, Riverkeeper's concerns have increased significantly with NMFS' release of its BO for the project (which is incorporated in the FEIS) and the New York State Department of Environmental Conservation (DEC) issuance of a draft Incidental Take permit pursuant to New York State Environmental Conservation Law Article 11, and its implementing regulations at 6 NYCRR Part 182 (DEC Draft Permit).

As discussed below, there are inconsistencies in the authorized sturgeon take between the BO and DEC draft permit that raise significant questions about the underlying scientific validity of the BO and DEC Draft Permit.

The BO found that the Project would adversely effect, but is not likely to jeopardize the continued existence of shortnose and Atlantic sturgeon.⁹ In analyzing the impacts of pile driving for the Project, NMFS anticipates the number of shortnose sturgeon and Atlantic sturgeon to be affected by the increased noise level to be 43-70 of each species (depending on the Long Span or Short Span Options, respectively), and estimates that one of each may suffer mortality.¹⁰ The BO also estimates one fatality for each species per year as the result of dredging. In the BO, NMFS issued a Take Statement authorizing the take of shortnose and Atlantic sturgeon in these numbers.¹¹

Less than 1 week prior to the release of the FEIS, the DEC issued the Draft Permit. The Draft Permit states in part that "It is estimated that approximately 125 Atlantic sturgeon and 298 shortnose sturgeon will be affected by elevated noise levels caused by pile driving during construction. Of these, as many as 52 Atlantic sturgeon and 89 shortnose sturgeon may suffer fatal injuries. The remaining incidental take will be in the form of non-lethal injury, disturbance or harassment."¹² The DEC Draft Permit does not appear to assess any impacts to shortnose or Atlantic sturgeon resulting from dredging related to the project.

In Riverkeeper's comments on the DEIS we stated that the ASP and BA for endangered shortnose and Atlantic sturgeon were inadequate and relied on flawed scientific methodology that failed to accurately assess impacts to these species. Our concerns continued to hold for the revised BA dated April 2012. The subsequent release of the BO and DEC Draft Permit only added to Riverkeeper's concerns, because they show vastly different take numbers, due to

⁹ FEIS Appendix F-6, NMFS Biological Opinion, at 2.

¹⁰ FEIS Appendix F-6, NMFS Biological Opinion, at 145.

¹¹ FEIS Appendix F-6, NMFS Biological Opinion, at 80.

¹² New York State Department of Environmental Conservation, Tappan Zee Bridge Draft Part 182 Incidental Take Permit at 2. Available at <http://www.newnybridge.com/documents/dec-permit/draft-permit.pdf>

radically different methodologies and assumptions used by NMFS and DEC in their analyses. Both the NMFS and DEC analyses appear to rely on the same flawed baseline studies conducted by the state that underlie the original BA and revised BA. The FEIS' reliance on the NMFS BO conclusions, therefore, renders the FEIS' overall determination of impacts to sturgeon invalid and legally deficient.

As described in further detail in Riverkeeper's consultant's analyses, included herein as Exhibits 3 and 4, the NMFS BO assessment of impacts to shortnose and Atlantic sturgeon is deficient and potentially underestimates the number of both species of sturgeon that will be affected by this project. The deficiency of the BO results from, among other things, NMFS' use of flawed data regarding the numbers of sturgeon which may be present in the area during bridge construction, the lack of reliable information on noise impacts and sturgeon behavioral responses to underwater noise, lack of assessment of potential take from vessel strikes, and inadequate assessment of dredging impacts, both direct (direct take from dredging operations) and indirect (significant loss of foraging habitat). The different assessment and study methods employed by NMFS and DEC fail to agree on the proper methodology to use in determining baseline sturgeon data, and do not utilize available historical data on Atlantic and shortnose sturgeon from the United States Fish and Wildlife Service (USFWS) and DEC. As noted by Riverkeeper's consultant,

The FEIS must account for the huge discrepancy between the JASCO PIDP report issued in July 2012 (126 sturgeon), based on one month of study, and the observed AECOM gillnet study results (12 shortnose sturgeon/no Atlantic sturgeon), based on one year of study. It must also be noted that none of the reports issued to date have been revised to reflect the JASCO sturgeon data including the Biological Assessment, the Incidental Take Permit, and the Biological Opinion all of which rely on AECOM's gillnet data to determine the amount of sturgeon expected to be affected from the pile driving operations. (Exhibit 4 at 2).

Long term research regarding the effects of the localized impacts of pile driving must be completed to fully assess and understand the impacts the Project will have on the federally endangered Atlantic and shortnose sturgeon. Exhibit 3 at 9.

In a similar fashion, Riverkeeper's comments on the DEIS raised concerns regarding the analysis of the environmental impacts of dredging the access channel for the Project and the potential impact to shortnose and Atlantic sturgeon. Although the FEIS contains limited mitigation measures that are apparently a condition set by the DEC, the dredging impact associated with the project is still grossly understated and is hardly minimized or mitigated.

Dredging the access channel for the project would be the largest dredging operation (1.68-1.74 million CY) in the Hudson Valley. The extent and magnitude of the dredging impacts on sturgeon population must be better assessed and understood. Despite conclusions in the BO that only one sturgeon of each species per year would suffer lethal take, as Riverkeeper pointed out in its DEIS comments, the Fact Sheet prepared by NMFS to accompany the listing of Atlantic Sturgeon as Endangered, and the DEIS itself acknowledged that dredging is one of the primary threats to the New York Bight population. Given the unprecedented scale of dredging and the lack of adequate study, the BO and FEIS' conclusions regarding the impacts of dredging are unsupported.

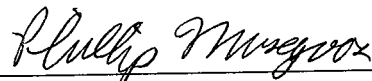
In addition, the significant loss of benthic habitat that would result from the dredging of a 500 foot wide channel across the Hudson River, and the impacts caused by the armoring of the dredged channel, have not been adequately assessed in the DEIS or FEIS, nor is there an explanation for why the natural river bottom will not be restored post-construction. The FEIS also does not address comments made by the USFWS on a draft of section 18 of the DEIS, which stated that "deposition of river sediments on top of an unnatural substrate is unlikely to mimic a natural river bottom...the DEIS needs to clearly explain what the impacts of armoring will be and what loss of natural resources will result...[so that] any short term impacts to natural resources are mitigated."¹³

Minimization of dredging impacts, mitigation of any short term or long term impacts, and restoration of the habitat lost must all be fully addressed in a supplemental EIS.

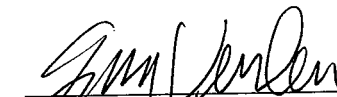
Conclusion

The lead agencies for this Project have effectively excluded the public from the review process and they remain in noncompliance with their state and federal legal obligations to conduct a proper environmental review of this Project. The fast track agenda for this Project is not allowing for the full and open public discussion of the viable alternatives to this Project, nor is it allowing for a proper analysis of the full extent of the Project's impacts on the environment. For all the reasons stated above, as well as those included in Riverkeeper's comment submitted on the DEIS, Riverkeeper maintains that this Project violates the requirements of both NEPA and SEQRA.

Respectfully submitted,



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Chief Investigator and Staff Attorney

¹³ See *United States Fish and Wildlife Service Comments on draft DEIS Chapter 18- Construction Impacts (December 2011)*, pg 18-7 (Exhibit 2).