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Sent: Tuesday, July 7, 2026 3:00 PM
To: CCECRestartEnvironmental Resource
Cc: Karen Greene - NOAA Federal; Eyler, Sheila; Kuhn, Kristopher; Yamashita, Coja; Miller, Jeremy; Dehoff, Andrew; Aaron Henning; Tony Prochaska; Matt Jargowsky; Steve Hurst; Emily Zollweg-Horan
Subject: [External_Sender] NOAA Fisheries Comments on Draft EA and FONSI for CCEC Reauthorization (Docket ID: NRC-2026-0397)
Attachments: Three Mile Island dEA Technical Assistance Letter_signed.pdf

Mr Folk:

Please find attached the NOAA Fisheries [Habitat and Ecosystem Services Division](#) comments on the [draft Environmental Assessment](#) for the proposed actions at the Crane Clean Energy Center (Docket ID: NRC-2026-0397). We appreciate your consideration of these comments as you complete the National Environmental Policy Act process. Please contact me (978-675-2180; jonathan.watson@noaa.gov) in our Annapolis Field Office if you have any questions regarding these comments.

Best regards,

Jonathan

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Jonathan Watson

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Federal Register Notice: 91FR34658
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UNITED STATES DEPARTMENT OF COMMERCE
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July 7, 2026

Kevin Folk,
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RE: Draft Environmental Assessment and Draft Finding of No Significant Impact for the Christopher M. Crane Clean Energy Center Reauthorization of Power Operations Project (Docket Number: 50-289)

Dear Mr. Folk:

We have reviewed the Draft Environmental Assessment (dEA) for the Christopher M. Crane Clean Energy Center (CCEC) Reauthorization of Power Operations Project (Project). The Project is located on Three Mile Island in Dauphin County near Harrisburg, Pennsylvania. The U.S. Nuclear Regulatory Commission (NRC) is evaluating potential environmental effects of the Project, in accordance with the National Environmental Policy Act of 1969 (NEPA). Under their proposed action, the NRC will approve several licensing and regulatory requests submitted by Constellation Energy Generation LLC (CEG or “Applicant”) to allow the resumption of power operations at CCEC. The dEA also describes a proposed action by the U.S. Department of Energy (DOE) to provide federal financial assistance for refueling and resumption of power operations at the CCEC. The NRC is the lead agency in this NEPA evaluation and DOE is a cooperating agency. Following the completion of the NEPA process, DOE intends to publish a separate notice or decision document, as necessary, to describe the proposed funding activity.

This dEA document includes consideration of impacts from the proposed action and the no-action alternative. In the dEA, NRC concludes that the Project would not have a substantial adverse effect on aquatic ecological resources, among other factors considered. Once operations resume, the Applicant proposes to employ a closed-cycle recirculating cooling system to reduce consumptive water needs at CCEC. The Applicant has requested a 73.2 million gallon per day (MGD) intake allowance from surface waters of the mainstem Susquehanna River, with a proposed consumptive use of 21 MGD, mainly to replenish evaporative loss. The Applicant also proposes a maximum effluent discharge into the Susquehanna River of 43.2 MGD with a maximum temperature of 110 °F.



We appreciate that the dEA does describe the presence of migratory fish in the project vicinity and we offer the following information to ensure that the current status and potential effects of the Project on NOAA trust resources are fully described and considered during your evaluation.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA), requires that all federal agencies, such as NRC, consult with us when proposed actions might result in modifications to a natural stream or body of water. It also requires that they consider the effects that these projects would have on fish and wildlife and must also provide for the improvement of these resources. Under this authority, we work to protect, conserve and enhance species and habitats for a wide range of aquatic resources such as shellfish, diadromous species, and other commercially and recreationally important species that are not managed by the federal fishery management councils and do not have designated essential fish habitat (EFH). The Susquehanna River serves as important habitat for several migratory fishes including American shad (*Alosa sapidissima*), alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), and American eel (*Anguilla rostrata*). As the nation's federal trustee for the conservation and management of marine, estuarine, and anadromous fishery resources, we provide the following comments pursuant to the authority of the FWCA. We note that the FWCA is not described in the dEA and should be considered for inclusion. Also, we confirm that the descriptions of the species that NOAA Fisheries manages under the Endangered Species Act (Section 3.8.2) and Magnuson Stevens Fishery Conservation and Management Act (Section 3.8.3) and the distribution of their respective habitats are accurately represented in the dEA as they relate to the Project.

Migratory Fish in the Susquehanna River

The Project's water intake and outfall structures are located in areas that provide spawning and rearing habitat and migration corridors for diadromous fish including American shad, river herring (alewife and blueback herring, collectively), and American eel. Currently, upstream migrants (adult American shad, adult river herring, juvenile eels) are transported from collection facilities at Conowingo Dam and transported to reaches of the mainstem Susquehanna upstream of both the Safe Harbor Dam and York Haven Dam to complete their complex life histories. American shad and river herring that spawn and rear in the vicinity of the Project are currently at or near their lowest population levels in the Susquehanna River (ASMFC 2020, ASMFC 2024). [Annual passage numbers](#) at Conowingo Dam, the lowermost barriers on the Susquehanna River, illustrate that the number of returning spawning adults has diminished from recent highs in the early 2000's. The Susquehanna River has the largest unrealized production potential for American shad across their U.S. Atlantic Coast range (Zydlewski et al. 2021). As such, juvenile survival and recruitment into the adult coastal population is critical to the persistence and recovery of these species in the watershed and contributes to the health of the Chesapeake Bay stocks. The dEA describes these populations "recovered", which is not reflective of their current status in the Susquehanna River or Chesapeake Bay more broadly.

While the dEA does describe American eel in the project vicinity, it does not describe the status of the species in the Susquehanna River. Their populations have shown promising signs of improvement in the Susquehanna River watershed due to sustained stocking efforts but are still

far below their historical abundances. In the recent benchmark stock assessment (ASMFC 2023), the Atlantic States Marine Fisheries Commission (ASMFC) determined that this species was overfished and that overfishing was likely occurring. ASMFC also notes the substantial difficulty in assessing the status of the species given its complex life history and extensive distribution. In the Susquehanna, these species migrate past the Project intakes/outfalls to complete their life histories and are susceptible to intake-related mortality and behavioral modification due to water quality (i.e., temperature) modifications.

We have worked in coordination with the state and federal resource agencies through the Susquehanna River Anadromous Fish Restoration Cooperative (SRAFRFC) to restore migratory fish populations in the Susquehanna River Basin for several decades. SRAFRFC (2010) set several goals intended to support the recovery of these species. We note that extensive work remains to address habitat-related challenges in pursuit of these goals. Recent efforts have included the construction of a nature-like fishway at York Haven Dam along the southern end of Three Mile Island, approximately one mile downstream from CCEC. We wish to draw proactive attention to the current status of migratory fish in the Susquehanna River and the sustained efforts of state and federal partners in cooperation with hydropower facilities to meet these restoration goals. For additional information regarding the current status of migratory fish species in the Susquehanna River and associated management activities, please see the [Susquehanna River Basin Commission SRAFRFC webpage](#).

Potential Project Impacts and Common Mitigation Measures

We anticipate that the Project may adversely affect NOAA trust resources (i.e., migratory fish) in the Susquehanna River primarily through impingement/entrainment related mortality at the Project's intake. The dEA considers this potential source of mortality, though NRC implies that high fecundity may offset any mortality. However, given the low adult returns to suitable spawning habitat in the Susquehanna River, any additional sources of juvenile mortality will challenge the recovery of these species. The 2020 American shad benchmark stock assessment (ASMFC 2020) notes that, in certain systems, fish mortality due to freshwater intakes has been estimated to be substantial. A paucity of data at the Project challenges our ability to fully quantify these impacts. In the Mid-Atlantic, resource agencies have identified best management practices (BMPs) for water intakes to minimize the entrainment and impingement of fish at different life history stages. New water intake structures proposed under the U.S. Army Corps of Engineers (USACE) Nationwide Permit (NWP) Program are required to meet the following associated [regional conditions](#) in the Commonwealth of Pennsylvania:

- Intake velocities should not exceed 0.5 feet per second
- A 1 mm wedge wire screen or better technology be installed at the intake origin
- Intakes should be designed such that sweeping velocities across the intake screen are generally greater than intake velocities.

These BMPs are generally included in the regional conditions for all states in the Mid-Atlantic and New England regions, although Virginia requires more conservative modeling (See: Qin et al. 2022) and [design standards](#) under their NPDES permitting process. The information presented in the dEA regarding the Project's existing intake structure suggests that these BMPs may not be

fully met. We encourage and support any efforts to evaluate intake impingement and entrainment of Alosines (eggs, larvae, juvenile) and American eel (juvenile and adult) during the initial years of operation to determine whether the Project represents a significant source of mortality for these species and if additional measures can be implemented to reduce this mortality.

The discharge of heated effluent from the facility may also affect fish migrations. The Project will discharge heated effluent approximately one mile directly upstream from the newly-constructed Nature-Like Fishway (NLF) at the York Haven Dam. The construction of this NLF was negotiated and undertaken over the last several years and the potential for additional withdrawal/discharge from the Project was not fully considered during its design because the reauthorization of power operations at the CCEC were not contemplated at that time. As a result, we are concerned that the Project discharges may increase the temperature of water in the vicinity of the newly-constructed fishway that may impede fish use of this passage facility during both upstream and downstream migration. We encourage and support efforts to monitor the Project's effects on local water quality during these critical periods for fish movement (i.e., spring, fall). Such studies may inform the need for additional mitigative measures to sustain existing migratory fish populations and support their restoration and could include temperature monitoring at various locations downstream of the Project discharge, including, but not limited to the vicinity of the NLF, to determine the extent of thermal impacts from the Project.

Conclusion

We recommend including additional detail in the final EA regarding the migratory species presence and status, the particular importance of this reach of the river for these species, and the potential Project impacts on migratory fish in the Susquehanna River. We will continue to work with the SRAFRRC partners to evaluate information available related to the Project and provide technical assistance to support the recovery of migratory fish species in the watershed. If you have any questions regarding these comments, please contact Jonathan Watson in our Annapolis, MD field office (978-675-2810; jonathan.watson@noaa.gov).

Sincerely,

Karen M. Greene
Mid-Atlantic Branch Chief
Habitat and Ecosystem Services Division

cc: USFWS - S. Eyler
PAFBC - K. Kuhn, C. Yamashita
PADEP - J. Miller
SRBC - A. Dehoff, A. Henning
MDNR - T. Prochaska, M. Jargowsky
NYDEC - S. Hurst, E. Zolloweg-Horan

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