

March 22, 2006

H. Dale Hall
Director
U.S. Fish and Wildlife Service
1849 C Street, NW
MailStop 3238 MIB
Washington, DC 20240

**Re: U.S. Fish and Wildlife Service, Notice of Petition Finding and
Initiation of Endangered Species Act Status Review – American Eel**

Dear Director Hall:

The National Hydropower Association (“NHA” or “Association”) provides the following additional comments on the U.S. Fish and Wildlife Service’s (“Service” or “FWS”) 12-month status review to determine if listing of the American eel is warranted under the Endangered Species Act (“ESA”), as reflected in Service’s Notice of Petition Finding and Initiation of Status Review for the American Eel (“Notice”), 70 Fed. Reg. 388849 (July 6, 2005).¹ NHA is the national trade association committed exclusively to representing the interests of the hydroelectric power industry. Our members represent approximately 61 percent of domestic, non-Federal hydroelectric capacity and nearly 80,000 megawatts overall in North America. Many of our member companies own and operate hydroelectric projects on rivers where American eel are present.

NHA appreciates the substantial efforts by the Service and Atlantic States Marine Fisheries Commission (“ASMFC”) to determine and evaluate the current status of the American eel stock. Further, NHA supports continued evaluation and additional data collection.

As you may be aware, the ASMFC, in its recent American Eel Management Board meeting on February 22, 2006, released and approved its Stock Assessment Report No. 06-01, which included the *American Eel Stock Assessment Report for Peer Review* (“*Stock Assessment*”) and *Terms of Reference & Advisory Report to the American Eel Stock Assessment Peer Review* (“*Peer Review*”). Because the hydropower industry takes its role as a steward of our nation’s

¹ NHA filed comments on the Service’s Notice of Petition on September 6, 2005; a copy is attached for your convenience.

natural resources very seriously, NHA and several of its member companies have been active participants in the ASMFC process, as well as the Service's concurrent status review.

NHA understands that the Service is coordinating with ASMFC on its status review of the American eel and plans on using the ASMFC *Stock Assessment* in its ESA determination.² However, the *Stock Assessment* does not have the scientific validity necessary for use by the Service in a determination that the American eel may be endangered or threatened under any of the factors set forth in Section 4(a)(1) of the ESA. Therefore, the Service should not act precipitously on an ESA determination that listing is warranted based upon the *Stock Assessment*.

The *Stock Assessment*—by its own terms, and as demonstrated by the critical conclusions of the *Peer Review*—is fundamentally flawed because it failed to include all available datasets, utilized questionable analytical methods, and was unable to reach any quantifiable conclusion regarding the status of the American eel. For these reasons, NHA believes that if the Service were to rely on the *Stock Assessment* to determine that ESA listing may be warranted, it would not fulfill its statutory mandate under Section 4(b)(1)(A) of the ESA to make determinations “solely on the basis of the best available scientific and commercial data,” as discussed below.

The *Stock Assessment* Failed to Include All Available Datasets. The *Stock Assessment* either omitted or ignored several key datasets. Indeed, the *Peer Review* concluded that “[p]ublished data and information were inadequately presented and utilized in this benchmark assessment for American eel.” *Peer Review* at 1. Although many datasets were identified by participants and made available to the ASMFC, both during and after its data workshop, many of these datasets were not included. Again, the *Peer Review* expressed concern “that important datasets were excluded because American Eel Technical Committee (TC) or [American Eel Stock Assessment Subcommittee (“SASC”)] members did not actively pursue datasets likely to be valuable. . .” *Id.* In particular, the *Stock Assessment* omitted the following datasets:

- International Council for the Exploration of the Sea 2001
- Purchase records made available by the Delaware Valley Fish Company
- Stewiacke River Electrofishing Index (Canada)
- St. Mary's River Electrofishing Index (Canada)
- St. John River Electrofishing Index (Canada)
- Prince Edward Island Fyke Net CPUE – Legal
- Prince Edward Island Fyke Net CPUE – Sublegal
- Delaware Juvenile Trawl Survey
- Bridge Tow Data, Little Egg Inlet, New Jersey
- Bridge Tow Data, Beaufort Inlet, North Carolina
- Numerous indices utilized by Richkus and Whalen 1999 and listed at Table 10 in the *Stock Assessment*

While NHA recognizes that several of these datasets were afforded summary treatment in Appendix B of the *Stock Assessment*, none were included in the overall analysis. And while the omission of some of these datasets appears to be the result of administrative oversight, *see Stock Assessment*, App. B at 113, it is far from clear why others were omitted. Indeed, the *Peer*

² See American Eel Endangered Species website (<http://www.fws.gov/northeast/ameel/statusreprog.html>).

Review noted that “[t]he assessment did not represent biological datasets. . . yet collection of these were emphasized in the 2000 [Fisheries Management Plan]. The Panel believes vetting and inclusion of such datasets are important steps that were overlooked in the Data Workshop process.” *Peer Review* at 1. Thus, the *Peer Review* recommended “that all datasets considered by SASC should be more fully documented with basic characteristics of those datasets . . . and brief justification for inclusion/exclusion to make this process more transparent.” *Id.*

The *Stock Assessment* Utilized Questionable Analytical Methods. The hallmark of the *Stock Assessment* was its novel approach of creating an entirely new coastwide index of relative abundance by combining separate datasets of available catch (pounds) per unit of effort from commercial eel pot fishery for the period 1992 to 2004. *See generally Stock Assessment* at 31-32. Although acknowledging that “effort is recorded differently in different states (pounds per pot-day, pounds per pot, pounds per purchase, and pounds per licensee that reported catching eels),” the *Stock Assessment* attempts to resolve these discrepancies and incompatibilities by simply standardizing the individual datasets through a Z-transformation, weighing the standardized datasets by landings, taking the mean of all weighted Z-scores from the individual datasets and standardizing the combined dataset again through another Z-transformation. *Id.* at 32.

The *Peer Review* rejected this approach: “Averaging Z-transformed time series of different durations is inappropriate because each index is standardized to a different baseline, which can result in biased temporal trends.” *Peer Review* at 3; *see also id.* at 10, 12. Instead, the Panel recommended analysis pursuant to a Generalized Linear Model framework. *Id.* at 10.

More fundamentally, the *Stock Assessment* failed to utilize contemporary published data and information on the American eel. The *Peer Review* noted that of the more than 120 research citations in the *Stock Assessment*, only 3 “were from the period 2000-2006.” *Id.* at 1. Because “substantive information on biological and ecological attributes of American eel (i.e., growth, mortality, migration, and abundance) had accrued over the past six years,” *Id.*, certainly the *Stock Assessment’s* reliance on stale data and information cannot be viewed as “the best available scientific and commercial data,” as required by Section 4(b)(1)(A) of the ESA.

The *Stock Assessment* Failed to Reach Any Quantifiable Conclusion Regarding the Status of the American Eel. By its own terms, the *Stock Assessment* concluded that “[i]nsufficient data prevented the committee from developing reference points of quantifying stock status,” *Stock Assessment* at iv, that its conclusions rely primarily on non-quantifiable methods, *id.* at vii, and that only “[a]necdotal information suggests” a decline in certain segments of the American eel population. *Id.* at iv (emphasis added). The *Peer Review* echoed these conclusions, finding that “sufficient shortcomings of the current assessment warrant additional action prior to its use for future technical and management purposes.” *Peer Review* at 6.

For the above reasons, NHA believes strongly that it would be premature and inappropriate for the Service, in its pending status review, to rely on the *Stock Assessment* for any determination that ESA listing may be warranted. “[T]he best available scientific and commercial data,” as required by the ESA, should not include a document that does not meet its

terms of reference, utilized questionable scientific methods, omitted key datasets, was supported only by non-quantifiable methods, and only reached anecdotal conclusions.

NHA appreciates the opportunity to provide these additional comments in this matter and looks forward to working with the Service through the remainder of the status review process. If you have any questions regarding this letter, please feel free to contact me or Jeffrey Leahey at (202) 682-1700.

Sincerely,

Linda Church-Ciucci
Executive Director

Attachment

cc: Dr. William T. Hogarth, Director, National Marine Fisheries Service (w/ attach.)
Martin Miller, Chief, Division of Endangered Species, FWS Region 5 (w/ attach.)
Heather Bell, FWS Region 5 (w/ attach.)
Gordon Colvin, Chair, ASMFC American Eel Management Board (w/ attach.)
Lydia Munger, ASMFC (w/ attach.)