United States Department of the Interior

FISH AND WILDLIFE SERVICE
Missouri Ecological Services Field Office
101 Park DeVille Drive, Suite A
Columbia, Missouri 65203-0057
Phone: (573) 234-2132 Fax: (573) 234-2181

September 29, 2014

Mr. David J. Wrona, Chief
Environmental Review and Guidance Update Branch
Division of License Renewal
Office of Nuclear Reactor Regulation
Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Mr. Wrona:

Please refer to your September 18, 2014, letter regarding the Callaway Plant, Unit 1, Nuclear Regulatory Commission (NRC) license renewal and Endangered Species Act consultation for that renewal. We have reviewed your letter, as well as spoken several times with Mr. Dennis Logan of your staff, and would appreciate the opportunity to clarify some misunderstandings reflected in your letter. This response is provided by the U.S. Fish and Wildlife Service (Service) under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4327), and the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543).

As noted in your letter, Jane Ledwin of my staff contacted Dennis Logan, NRC biologist, on June 9, 2014 to discuss the February 24, 2014 Biological Assessment (BA) Endangered Species Act (ESA) section 7 consultation regarding the Callaway Plant license renewal. The Service advised Mr. Logan that we would concur with the NRC's "may affect, but not likely to adversely affect" determination for the pink mucket (*Lampsilis abrupta*), scaleshell (*Leptodea leptodon*), spectacle case (*Cumberlandia monodonta*), and Indiana bat (*Myotis sodalis*). The determination for running buffalo clover (*Trifolium stoloniferum*), Topeka shiner (*Notropis Topeka*), Niangua darter (*Etheostoma cragini*), and gray bat (*Myotis grisescens*) should technically be "no effect" because they do not occur in the proposed project area and would not be directly or indirectly affected by the action. Thus, the Service did not include these species in our September 9, 2012, letter to NRC identifying federally listed species that may occur in the project vicinity.

With regards to the endangered pallid sturgeon (*Scaphirhynchus albus*), the Service informed Mr. Logan that we concurred with the NRC's determination of "may affect, but not likely to adversely affect *the continued existence of the pallid sturgeon*" and that any potential adverse

effects would accrue primarily through direct mortality due to entrainment and impingement of larvae and juveniles as described in the BA (Appendix H) of the Supplemental Environmental Impact Statement (SEIS) for the Callaway Plant relicensing. These potential adverse effects were described in the NRC's BA as "probable and most likely inevitable." We understood the NRC's determination to acknowledge potential adverse effects to pallid sturgeon; however, we note that the Service, not the action agency, is responsible for determining jeopardy (i.e., whether an action would appreciably reduce the survival and recovery of a federally listed species). The information provided in the NRC's BA, coupled with recent research findings on pallid sturgeon larval drift and power plant water intakes, supports a "likely to adversely affect" ESA section 7 determination as appropriately characterized in your recent letter. At this time, there is insufficient information to conclude that the risk to pallid sturgeon is insignificant or discountable.

Discussions with Mr. Logan have focused on how to proceed in an efficient and effective manner, consistent with the NRC licensing process and all applicable regulations. Specifically, during a September 9, 2014 phone conversation with Mr. Logan, we asked to explore potential options that would serve to acquire the data necessary to bolster the NRC's BA regarding project effects on pallid sturgeon. As an important point of clarification, the Service was not requesting an extended time frame for formal consultation, but rather exploring options that would provide adequate information for the Service to determine the level of take that could result from the proposed project. Formal consultation is "initiated" on the date the request is received, if the action agency provides all the relevant data required by 50 CFR §402.14(c). If all required data are not initially submitted, then formal consultation is initiated on the date on which all required information has been received. Within 30 working days of receipt of an initiation package, the Service will provide written acknowledgment of the consultation request, advise the action agency of any data deficiencies, and request either the missing data or a written statement that the data are not available. Mr. Logan informed the Service that the NRC intended to complete the Callaway Plant relicensing by the end of 2014 and did not have the ability to require additional studies as part of that process.

It is particularly important to address risk of entrainment and impingement to pallid sturgeon especially because the NRC indicated the Callaway Plant license conditions could not be revisited until the license comes up for renewal several years in the future. The Service has enclosed a bibliography of recent studies describing pallid sturgeon research, focusing on larval drift. We understand the NRC has information from the applicant regarding facility-specific studies conducted previously that address impingement and entrainment of aquatic organisms. Mr. Logan noted it is also possible, but not common, to condition a license to comply with a Service Biological Opinion post-licensing. It is our understanding that Mr. Logan agreed to coordinate a conference call among the agencies to discuss options and determine a preferred path forward. The Service has provided Mr. Logan the names of our participants and we are waiting to schedule the call pending availability of NRC staff.

We look forward to working with the NRC and the applicant to best address our shared responsibility to protect and conserve endangered species. Should you have questions, or if we

can be of further assistance, please contact Jane Ledwin at 573-234-2132, extension 109.

Sincerely,

Amy Salveter
Field Supervisor

cc: Ameren Missouri, Callaway Plant, Unit 1, Callaway County, MO (Wink)
USFWS, Bloomington, MN (Melius)
USFWS, Columbia, MO (Doyle)

Pallid Sturgeon Research Citations:

Braaten, P., Fuller, D., Lott, R., Ruggles, M., Brandt, T., Legare, R. and Holm, R. 2012. An experimental test and models of drift and dispersal processes of pallid sturgeon (*Scaphirhynchus albus*) free embryos in the Missouri River, *Environmental Biology of Fishes 93(3):* 377-392.

Braaten, P.J., Fuller, D.B., Lott, R.D., Ruggles, M.P., Holm, R.J. 2010. Spatial distribution of drifting pallid sturgeon larvae in the Missouri River inferred from two net designs and multiple sampling locations. *North American Journal of Fisheries Management 30*:1062-1074.

DeLonay, A.J., Jacobson, R.B., Papoulias, D.M., Wildhaber, M.L., Chojnacki, K.A., Pherigo,E.K., Haas, J.D., and Mestl, G.E. 2012. Ecological requirements for pallid sturgeon reproduction and recruitment in the Lower Missouri River: Annual report 2010, U.S. Geological Survey Open-File Report 2012-1009, 51 p.

DeLonay, A.J., Jacobson, R.B., Papoulias, D.M., Wildhaber, M.L., Chojnacki, K.A., Pherigo, E.K., Bergthold, C.L., and Mestl, G.E. 2010. Ecological requirements for pallid sturgeon reproduction and recruitment in the Lower Missouri River: Annual report 2009, U.S. Geological Survey Open-File Report 2010-1215, 64p.