

Thomas Fredrichs

From: Thomas Fredrichs
Sent: Friday, August 29, 2008 3:18 PM
To: Wrobel, George; Price, John (UniStar)
Cc: Parkhurst, Mary Ann; Kropp, Roy K; James Biggins; Laura Quinn; Harriet Nash; CCNPP3COL Resource
Subject: Aquatic RAIs for Calvert Cliffs
Attachments: Aug 2008 Aquatic Ecology RAIs Final.doc

Follow Up Flag: Follow up
Flag Status: Completed

George,

Attached are the finalized RAIs we discussed Aug 15, 2008. Please respond within 30 days.

Sincerely,

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Item	RAI #	RAIs Resulting from RAI Responses
RAI Responses—AQUATIC ECOLOGY		
1	RAI #12	<p>This response references a 2006–2007 entrainment study: <i>EA, 2007b. EA Engineering, Science, and Technology, Inc., Entrainment Characterization Data Report for Calvert Cliffs Nuclear Power Plant. Prepared for Constellation Generation Group. July, 2007.</i></p> <p>Please provide a copy of the report.</p>
2	RAI #12	<p>This response refers to a discussion with NMFS that states that it is not necessary to conduct an EFH evaluation for cobia, king mackerel, and Spanish mackerel. <i>NMFS, 2008. Chiarella, L., Pers. comm. National Marine Fisheries Service. 2008.</i></p> <p>Please provide written documentation of this information.</p>
3	AE-9	<p>Please provide a copy of the CCNPP Unit 3 Storm Water Management Plan, April 2008 that was referenced in this and other RAI responses.</p>
4	RAI #16/ #17	<p>Most of the information presented in these updated sections may prove to be useful, but has not been documented well. Two examples are provided. Only one reference, a Smithsonian Institution website, is cited for the beaver (SI 2008); much of the information about the beaver in the RAI response is not documented on that website. One citation is provided for the Atlantic Loggerhead Turtle (NatureServe Website). The website does not document much of the information provided in the text, especially the Chesapeake-specific data. For example, the response states that 2,000–10,000 young loggerheads forage in the bay during the summer. No support for this “fact” is offered. Information about the white perch habitat in Chesapeake Bay is not found on the NatureServe (2007k) website that is the only citation listed for the Habitat Requirements section.</p> <p>Please provide additional citations to document the facts presented in the RAI response.</p>
5	RAI #16	<p>Several species accounts have been incompletely put together.</p> <p>The Atlantic loggerhead turtle is said to nest on sandy beaches.</p> <p>Where are these nesting beaches located? Are any located in Chesapeake Bay?</p> <p>The population dynamics section for Kemp's Ridley Turtle only discusses threats and does not provide any information about population trends or status for the species.</p> <p>Provide information on population trends or status for the species as it relates to the Chesapeake Bay area.</p> <p>Weakfish: no information specific to Chesapeake Bay populations was provided.</p> <p>Provide information on weakfish populations and distribution that is specific to Chesapeake Bay</p> <p>Alewife are said to spawn in spring, perhaps as late as May (Life History section), but also to spawn in spring and <i>summer</i> (Reproduction Comments).</p> <p>When do alewife spawn in Chesapeake Bay?</p> <p>Blueback Herring are said to spawn in “deep, swift freshwater” (Habitat Requirements) or in “quieter, upper portions of streams and creeks” (Life History section).</p>

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		<p>What is the preferred spawning habitat for blueback herring as it relates to Chesapeake Bay?</p> <p>A quote about blueback herring and alewife population changes was attributed to Greg Garman. Provide documentation for the quote.</p> <p>The response mentions that green and leatherback turtles were not observed near the plant in 2006-2008, but does not provide any information about their general occurrence in Chesapeake Bay. Please provide information about the general occurrence of green and leatherback turtles in Chesapeake Bay.</p> <p>The section on soft-shelled clam doesn't provide information about the occurrence of the species near the plant although the response to RAI #97 states that the species has been a focus of a special study at Calvert Cliffs. Provide information about the occurrence of soft-shelled clams at the CCNPP site.</p>
6	RAI #58/ #63	<p>These two RAIs requested more detailed information about the proposed dredging, including the method and the specific location of dredging for the intake system. The responses to RAIs #58 and #63 were compared with information provided to other agencies (e.g., Section 3 of the Supp. Env. Resource Report (SERR) issued in May 2008 in support of the 404 application). Please provide up-to-date information about the construction of the intake system and the dredging that will occur in the Bay.</p> <ul style="list-style-type: none"> • RAI #58 states (and RAI #63 repeats) that dredging will occur "within the existing CWIS embayment behind the baffle wall..." However, SERR Sections 3.4 and 3.7 state that an expansion of the existing CWIS will be dredged. Please provide the specific locations where dredging will occur. Also, provide information about dredging that will occur during construction of the intake system: the area (size and location) to be dredged? the current water depth in the area to be dredged? To what depth will it be dredged? How much material will be removed? Where will it be disposed? Will there be any armoring at the new intake structure? If so, what is the extent (i.e., length and basal width) of the armored section to be added? • RAI #58 states (and RAI #63 repeats) that about 15,000 cubic yards of material will be removed to enlarge the barge slip. However, SERR section 3.9.2 states that 60,000 cubic yards will be removed. What is the correct amount of material anticipated to be dredged? • RAI #58 states (but RAI #63 does not state) that pilings may be driven to support the pipeline installation. Will pilings be driven in Chesapeake Bay to support the pipeline installation? If so, what type of pilings will be used and how will they be installed? If wood pilings are used, will they be treated (what type)? If barges will be used for pile driving, how will they be positioned (e.g., anchors, jack-up supports)? If pile driving will occur, the response to RAI #62 needs to be revisited. • RAI #58 states (and RAI #63 repeats) that the potential for anchor scarring of the benthos is small. What is the basis for this conclusion? If anchors are used, the potential impacts can extend well beyond the dredging area. This may not be a factor for the barge area because dredging will be from shore, but could be an issue for the pipeline trenching. Explain whether this is an issue for the barge area because dredging will be from shore and whether this is an issue for the pipeline trenching. • Will the intake system include a fish return system? If so, please provide information about this system including the location, length, and position of the return pipe (i.e., what part of the water column). If a pipe will extend into the Bay, will installation of any part of the pipe or outfall require trenching in the bay? Will it lay on the bay bottom? How long is the outfall pipe? What is its

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		<p>diameter? Will it be protected with riprap or stone? If so, how much, what type, etc.? Will flow within the pipe be enough to keep it from getting filled with sediment (e.g., during storms)?</p> <ul style="list-style-type: none"> Describe any other construction activities at the intake area, discharge area, or barge facility that could affect aquatic resources in the Bay. For example, will new crane foundations be placed at the barge facility? If so, describe the foundations, their locations, and how they will be placed so that potential impacts to aquatic resources can be evaluated.
7	RAI #59	<p>What is the basis for the conclusion that prop wash impacts to the benthos will be small? What size vessels will use the barge dock? What is the time period during which the barge dock will be used?</p>
8	RAI #61	<p>RAI #61 requested information about the discharge pipeline installation. The response provides some of the physical dimensions of the pipe and diffuser system. Please provide specific information about the pipeline installation.</p> <ul style="list-style-type: none"> The response states that the trench will be limited to that needed to install the pipe, but doesn't give any details. How wide will the trench be dredged? How much material will be removed? Where will it be disposed? The response states that riprap or stone will be used to cover the pipe. What size and type of rock (riprap) will be used to cover the outfall pipe and to protect the diffuser? To what width around the pipe and diffuser will the rock be placed? How far above sediment grade will the riprap extend? Figure 3.8-3 of the Supp. ER appears to show that the top of the pipe will be about 4 ft beneath the bay bottom, but shows that the pipe will be covered with riprap and filter. What is "filter"? [typo for filler?] The figure also suggests that part of the trench may be filled with material other than riprap. If so, what is that material and what is its source?
9	RAI #62	<p>This RAI requested a <i>description</i> of the possible impacts associated with pile driving. Only a <i>list</i> of three possible impacts was provided. <u>If pile driving will be used during the project</u>, describe the potential impacts from sediment deposition (how much, to what extent?), noise (what levels and duration, any impacts to fish, birds, turtles?), and intense vibrations (how intense and for what duration, taxa most likely affected?). Also, if treated-wood pilings will be used, describe the potential impacts associated with that usage.</p>
10	RAI #92/ #93	<p>More recent entrainment data are available (see note for Item 1, RAI #12 above). Why weren't these recent data used? Would the calculated losses from entrainment differ had the recent data been used? Do the recent data suggest differences from the historical data in the taxa or relative abundance of taxa impacted? The response states that NOAA (2008) data (which are actually for 2006-7) demonstrate that historical data are valid to use in the assessment of entrainment impacts. Provide the NOAA and historical data, or representative examples that support the conclusion.</p>