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RE: BHMS and Brunswick Harbor O&M, Revised IFR/EA Public Comment, Glynn County

Dear Ms. Garvey,

Staff of the Georgia Department of Natural Resources (DNR) has reviewed the June 21, 2021 and June 23, 2021 Public Notices and updated draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) for the Brunswick Harbor Modification Study (BHMS). The Corps has updated the analysis in the IFR/EA to provide clarity related to the operations and maintenance (O&M) of the federal navigation channel that includes additional analysis and information regarding the Corps' compliance with the 2020 South Atlantic Regional Biological Opinion for the Dredging and Material Placement Activities in the Southeast U.S. (2020 SARBO). The comment period extends through July 21, 2021.

On April 23, 2021, DNR Georgia Coastal Management Program (GCMP) issued a Coastal Zone Management Act (CZMA) Federal Consistency Determination Conditional Concurrence that provided twelve (12) mitigation measures or conditions that could be incorporated to allow the proposed project to be consistent to the maximum extent practicable with GCMP's enforceable policies. The U.S. Army Corps of Engineers (Corps) responded May 20, 2021, that, among other things, the conditions were not acceptable, the letter would be treated as an objection, the proposed action was consistent without the management measures, and that they would proceed with the project over GCMP's objection. On June 21, 2021, the Corps revised the IFR/EA, including the Appendix J Federal Consistency Determination, and included their May 20, 2021, response letter.

In an effort to inform the public record as it relates to the IFR/EA Appendix J, DNR takes this opportunity to assert that our April 23, 2021 letter and attachments contained both an explanation of why the conditions are necessary to ensure consistency with specific enforceable

policies of the GCMP as required in 15 CFR 930.4(a)(1) and an identification of the specific enforceable policies as required in 15 CFR 930.4(a)(1). Our letter is a valid consistency response.

However, we find that the Corps' May 20, 2021 response letter did not meet the burden as required by federal regulations in order to proceed over a state objection as follows:

1. In claiming the proposed project was fully consistent with the enforceable policies of the management program as required in 15 CFR 930.43(d)(2) when enforceable policies forbid the taking of sea turtles;¹
2. In claiming the proposed project was consistent to the maximum extent practicable with the enforceable policies of the management program as required in 15 CFR 930.43(d)(1) when it failed to clearly describe in writing the statutory provisions, legislative history, or other legal authority which limits the Corps' discretion to be fully consistent with the enforceable policies as required under 15 CFR 930.32(a)(2). Both 2020 SARBO² and the IFR/EA³ state that winter hopper dredging is allowed; and
3. Not adhering to 15 CFR 930.32(a)(2) that requires, whenever legally permissible, the Corps consider the enforceable policies of a management program as requirements to be adhered to in addition to existing federal agency statutory mandates. Section 307(e) of the Coastal Zone Management Act was intended to cause substantive changes in federal agency decision-making within the context of the discretionary powers residing in such agencies⁴ and the Corps has the discretion to adopt all twelve (12) mitigation measures outlined in our conditional concurrence letter.

The National Environmental Policy Act (NEPA) requires the more detailed and rigorous environmental impact statement (EIS) rather than a simplified environmental assessment (EA) when environmental impacts are significant, such as shifting risk from one endangered species to another. The 2020 SARBO provides a process for shifting risk between species that the 1997 SARBO did not but was not intended as a stand-alone document providing defense against unsubstantiated choices. The 2020 SARBO requires completion of a pre-construction risk assessment that was not included in the EA; therefore it has not been substantiated and cannot be concluded that there will be no significant impacts from the proposed project.

¹ Game And Fish Code O.C.G.A. 27-1-3(f) states it is unlawful to hunt, trap, or fish except during open season; O.C.G.A. 27-1-2(39) defines "hunting" as pursuing, shooting, killing, taking, or capturing wildlife; O.C.G.A. 27-1-2(34) defines sea turtles and their eggs as "game animals"; and no hunting season has been promulgated for sea turtles.

² 2020 SARBO Appendix F, page 593: "Hopper dredging and projects requiring survey vessels over 33-ft in length will be scheduled, to the maximum extent practicable, outside of North Atlantic right whale migration and calving seasons..."

³ Brunswick Harbor Modification Study, Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI, Section 4.5 Protected Species, page 103: "While the 2020 SARBO allows dredging any time of year, including the historic winter environmental windows, it also requires that a project meet all relevant project design criteria..."

⁴ 15 CFR 930.32 (a)(2)

The project has two components including 1) dredging of a bend widener and turning basin, and 2) annual maintenance dredging of the Brunswick Ship Channel. The bend widening and turning basin portion of the project will be completed with a pipeline/hydraulic dredge. Pipeline/hydraulic dredges are not known to cause mortality of protected species. The channel maintenance component of the project will rely on trailing suction hopper dredges which have been shown to have significant effects on protected species populations. The following comments focus on the channel maintenance portion of the project. The Corps considered 9 alternatives for the project. The No Action Alternative (NAA, Alternative 1) includes the use of seasonal winter dredging windows for channel maintenance dredging. All other alternatives include the use of a risk-based assessment to determine the appropriate time of year for maintenance dredging. Under the risk-based assessment alternatives, the Corps states its intention to dredge during the summer months. The EA did not consider winter dredging windows in Alternatives 2 through 9; winter dredge windows were only considered in the No Action Alternative.

After review of the environmental data, the Corps selected Alternative 8 with a risk assessment-based approach for maintenance dredging and issued a Draft Finding of No Significant Impact (FONSI). We disagree with the Corps' FONSI for the Brunswick Harbor Modification Project and find the EA deficient for several reasons including: 1) the target species and goal of the risk assessment are not clearly defined, 2) the risk discussion does not take into account quantitative data on species mortality rates and population status, 3) risk is described in broad qualitative categories with no explanation of how the categories are defined, 4) mitigation measures for reducing sea turtle mortality associated with summer dredging are speculative with no scientific basis, and 5) the Corps did not select the alternative for maintenance dredging with the least impacts to population recovery. The proposed alternative represents a major shift in the seasonal timing of maintenance dredging that will result in significant increased threats to loggerhead population recovery without demonstrating any reduction in risk to North Atlantic right whale (NARW) or sturgeon population recovery. Because potential impacts to protected species are not adequately explored in the EA by limiting alternative analysis to summer dredging rather than including year-around risk-based assessments to inform timing for hopper dredging, NEPA requires the Corps to develop an EIS to ensure the impacts of the project are fully understood and disclosed in advance. The more detailed and rigorous EIS process is also required to address cumulative impacts.

Regarding target species and goal of the risk assessment, the EA risk assessment discussion is deficient for several reasons. First, the EA should provide a statement that describes each species, including distinct population segments and recovery units, to which the risk assessment applies. For example, the EA frequently refers to risks to "sea turtles" as a group. Several species and life stages of sea turtles occur in Georgia seasonally with different levels of concern for population recovery. It is not appropriate to consider risk at the level of all sea turtles. In addition, it is unclear whether the purpose of the risk assessment is to reduce risk of mortality to individual

animals or ensure the project doesn't affect population status or recovery. For instance, the EA selects alternative 8 as the preferred alternative partially due to predicted reductions in mortality of Atlantic sturgeon. The difference in sturgeon mortality between the 2 scenarios is very small and would not result in effects on population abundance or recovery. It is not appropriate to use sturgeon mortality as a factor in selection of the alternatives if the goal of the risk assessment is to minimize effects on sturgeon population recovery. The selection of the appropriate alternative depends on the goal of the risk assessment. Without a clearly defined biological goal, it is impossible to select the best alternative.

Second, the risk assessment fails to consider critical biological data DNR provided the Corps via the April 23, 2021 Memorandum including historic and predicted mortality rates for summer and winter dredging in Georgia and assessments of the predicted mortality on population status and recovery. At a minimum, the risk assessment process should include the development of a matrix that includes this data for the relevant species and subpopulation/recovery units potentially affected by the project. A consideration of all relevant biological data is necessary to select the appropriate alternative.

Third, the EA describes risk in broad qualitative categories with no explanation of how the categories are defined (low, slight, high). For example, the EA argues that the risk of a right whale vessel strike is very low but the consequences to the population are high. A low-risk action could include an event that happens so infrequently that it is discountable. Alternatively, it could represent an event that has effects on population recovery. In the NAA section, the EA argues that the NAA alternative increases "risk" to Atlantic sturgeon; however, there is no discussion of what the increased risk means and whether it will have effects on population recovery.

In the case of the NARW, the EA states that the consequences of a strike could "change the survivability of a species with such low population numbers"; however, there is no discussion of how they arrived at this conclusion. Hopper dredging has occurred for over 30 years in Georgia during the winter months with no documented NARW/vessel interactions or mortalities. By definition, the activity has had no effect on population recovery. During the period 1990-2010, the NARW population grew at approximately 2.8% per year with dredging occurring during the winter dredging window in Georgia. We have no reason to assume that the probability of interaction between NARW, hopper dredges and support vessels will increase in the future. By comparison, a recent summary of human caused NARW mortalities in the U.S. and Canada (vessel strikes, pot/trap gear entanglements, other) estimated ~141 NARW mortalities from 2010-2018 (NMFS Draft BiOp 2021). The risk categories in the EA should be clearly defined and have some relation to population recovery.

Fourth, the EA includes speculative information used to argue that summer dredging will have little or no effect on sea turtle populations.⁵ Citations should be provided in the text, or the statements should be removed from the EA. Similarly, the risk assessment includes misinterpretations of research conducted by DNR [Assessment of demographic recovery criteria for the Northern Recovery Unit (NRU) of loggerhead turtles (*Caretta caretta*) using genetic mark-recapture including implementation of high priority actions (Report submitted for NOAA Grant Number: NA16NMF4720076)]. The EA states that genetic work in Brunswick and North Florida suggests that there “may not be” as much fidelity of loggerhead turtles to a specific nesting beach as previously thought. This statement is not correct. The study in question found that loggerhead turtles exhibit extremely high intra-seasonal nest site fidelity (Shamblin et al. 2017). Forty seven percent (47%) of NRU loggerhead nesting females used 5 km of beach or less for nesting and 73% used less than 20 km. These results were consistent with previous satellite telemetry studies (Hart 2013, Tucker 2010). In addition, the EA states that the study “seems” to indicate that there are more loggerhead females than previously thought. Again, this statement is not correct. Previous estimates of adult female loggerheads were derived from nest numbers, clutch frequency and remigration estimates. There was a high degree of uncertainty associated with these estimates. The study conducted by DNR was the first recovery unit-wide count of adult female loggerheads using genetic analysis (microsatellite DNA) of egg samples from all observed nests. Overall, our study found that loggerheads have high site fidelity and that mortality of adult females during proposed summer dredging would have effects on local nesting populations.

Finally, the EA provides several justifications as to why Alternative 8 is the preferred alternative that will significantly reduce risk to NARW and Atlantic Sturgeon and may slightly increase risk to sea turtles,⁶ even though risks to population recovery have been refuted or are incomplete assessments. Research provided by DNR shows that loggerhead sea turtles exhibit extremely high site fidelity, local sources of mortality will have effects on local populations (Shamblin 2017), and population modeling shows the NRU loggerhead population came very close to extirpation in the early 2000’s and has sustained a recent increase in nesting due to intensive beach management and the implementation of Turtle Excluder Devices (TED; Nuse et al 2020). Modeling predicts that the population will plateau and possibly decline slightly because of lack of recruitment from low nesting in the early 2000s. Allowable take limits for adult loggerheads in the 2020 SARBO (214

⁵ Examples of speculative information in the EA include: 1) the take of sea turtles tends to be highest near the end of dredging projects and bed-leveling will mitigate sea turtle mortality, 2) sea turtle brumation on or in the surface layer is more likely during the winter making deflectors more effective and relocation trawling less effective, 3) sea turtles thermoregulate so those encountered during the winter months are less able to avoid interactions and those encountered during the warmer months are able to react quicker to equipment, and 4) sea turtles are believed to move throughout the water column during the warmer months reducing bottom time and interaction with dredge equipment. We are not aware of biological data or scientific studies that supports these statements.

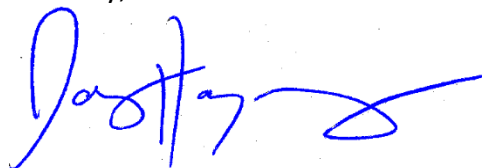
⁶ The justification provided includes the following points: 1) there is an increased number of loggerheads, 2) loggerheads have the ability to nest along the southeast coast, 3) dredging outside the traditional windows is not expected to impact the species (loggerheads), 4) take is limited (107 observed loggerheads over 3 years), 5) the Corps has a history of managing hopper dredging without excessive take, and 6) the NAA has greater risk to NARW and Atlantic sturgeon.

over 3 years) could lead to a decline in the overall NRU population or declines in local populations adjacent to ship channels. The risk of mortality to nesting females is estimated to be 8 times higher during the spring and summer than during winter hopper dredging and should be avoided. Atlantic sturgeon mortality is expected to be slightly higher for the NAA; however, the predicted take is estimated to be ~1 animal per channel per year. This level of take is not expected to have effects on population recovery. There is no discussion of the effects of the alternative plans on Atlantic sturgeon population recovery in the EA.

For the last 30 years, channel maintenance dredging in the Brunswick Ship Channel has been restricted to winter months to reduce sea turtle mortality (15 December-31 March). From 1994-2019, loggerhead sea turtle mortality averaged 1.3 turtles per year in Georgia channels (Savannah, Brunswick, and Kings Bay). All winter dredging mortalities were juveniles. No right whale interactions or mortalities were documented during the period (0 per year). Sturgeon mortalities were low with an average of 3.4 per year in Georgia (most recent 5-year period with standardized monitoring). A review of the biological data clearly shows that the use of winter dredging windows for hopper dredging activities in Georgia represents the best alternative to minimize mortality of protected species and achieve population recovery. Overall, the use of winter dredging windows represents a highly successful multi-species approach to minimizing threats to protected species in Georgia.

DNR submits this letter solely for the purpose of public comment on the IFR/EA, and the Corps may not view this as a final response or rebuttal to the May 20, 2021 letter. DNR intends to continue working with the Corps toward amicable resolution of these and other disputes related to the BHMS proposed project subject to the April 23, 2021 federal consistency conditional concurrence letter. Please contact Jason Lee (jason.lee@dnr.ga.gov) if you have technical questions, Kelie Moore (kelie.moore@dnr.ga.gov) if you have questions about GCMP federal consistency provisions, or me if I can be of further assistance.

Sincerely,



Doug Haymans
Director

DH/km

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