



To: **Rankin-Hinds Pearl River Flood and Drainage Control District**

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From: **John Lopez and Theryn Henkel**

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RE: **Comments Submitted on the Preliminary Feasibility Study and Draft Environmental Impact Statement for Pearl River Basin**

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The Lake Pontchartrain Basin Foundation's mission is to be the public's independent voice on environmental issues in the Pontchartrain Basin. Therefore parts, of the Pearl River Basin that fall in Louisiana fall under the purview of the Lake Pontchartrain Basin Foundation, including the natural areas of Bogue Chitto National Wildlife Refuge and the Pearl River Wildlife Management Area and any part of the Pearl River Basin that occurs in Louisiana but not in those preserves. Below we outline recommendations of items that we strongly believe should be included in the Draft Feasibility and Environmental Impact Study of the Pearl River Watershed. Recommendations are made on defining the study area for the EIS, on the proposed alternatives and on ecological analysis that should be included in the study.

Individuals from the Lake Pontchartrain Basin Foundation attended the public meetings offered in Picayune, Mississippi on October 29 and in St. Tammany Parish on November 20. At these meetings, in both the information presented and in the literature that was handed out, the study area was indicated as an oval encompassing the municipalities of Jackson, Pearl and Flowood. We feel that this definition of the study area is very vague and does encompass the extent that is needed to adequately comply with NEPA requirements. Under the CEQ NEPA regulations, Part 1502, Section 1502.15 – Affected Environment, NEPA regulations clearly state that “The environmental impact statement shall succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration.” Under NEPA regulation it is required to define the study area accurately and completely. In this study, the study area should be defined, at a minimum, as the Pearl River watershed boundaries from the Ross Barnett Reservoir to the Biloxi Marshes, although consideration further

upstream may be needed. The proposed project and alternatives do not affect just the river channel and flow dynamics but the health and ecology of the surrounding forest ecosystem, therefore entire watershed must be considered since there are important flooding dynamics downstream of the project (which will be discussed in more detail later in these comments). In addition, consideration past the mouth of the river must be made as the freshwater and nutrients that enter Mississippi Sound are important to the Biloxi Marshes as well as organisms and industries that use those marshes, such as oysters and shrimp.

The Lake Pontchartrain Basin foundation feels that the alternatives under consideration are inadequate, both in that some of the listed alternatives are incomplete and that there are some alternatives that should be included in the analysis that are currently not being considered. First, the only nonstructural options listed under that alternative are to buy out properties that are in flood prone areas and relocate the owners/residents of those properties. We believe that raising structures should also be considered under the nonstructural alternative. Raising structures so that the main living or business areas are high off the ground can help to avoid destruction by flood waters under many flooding scenarios. The raising of structures is a common nonstructural technique used to protect citizens inside and outside of the hurricane protection levees in Louisiana and is currently being considered as a valid alternative by the U.S Army Corps of Engineers for St. James Parish under the West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction Study. Raising structures must be considered as an important aspect of the nonstructural alternative as it can be economically more feasible than buying out residents and more acceptable to residents than forced migration.

An alternative that includes proper management of the Ross Barnett Reservoir should be included in the EIS and receive strong consideration. At the public meeting held in St. Tammany Parish on November 20, members of the Rankin-Hinds Pearl River Flood and Drainage Control District (RHPRFDCCD) indicated that the main source of flooding in Jackson and surrounding municipalities was from water release from the Ross Barnett Reservoir. The same members also indicated that politically, it was very difficult to work with The Pearl River Valley Water Supply District (PRVWSD) to manage the reservoir in a way that does not affect downstream communities and that they opened it "whenever they wanted." If the source of flooding to Jackson and surrounding municipalities is indeed the reservoir, then we believe that working with the PRVWSD to come up with a satisfactory management program should be a strong alternative. If the management of the reservoir could be improved, then this alternative would represent a very fiscally responsible alternative, as no structures would need to be built. We are also deeply concerned that if there is no current relationship with the managers of the reservoir and one cannot be established, then the management of the One Lake alternative will not be effective because management of the Ross Barnett Reservoir will be needed to adequately maintain lake water levels and proper flows downstream. A partnership between the RHPRFDCCD and PRVWSD is essential to the success of any of the proposed alternatives making this the highest priority and perhaps, the only alternative needed.

Lastly, an alternative that should be considered in conjunction with any other alternative is for the Jackson, Flowood and Pearl municipalities to devise an Urban Water Plan in which innovations in engineering, planning and design are used to manage water resources and convert them into assets. Under the Living With Water planning (<http://livingwithwater.com/>), storm water is managed by slowing the flow of water, storing the water in place, storing rainfall for future uses and using local ecology to manage water resources are all accomplished through innovative techniques in urban and whole system storm water and ground water management. While we understand that using these principles would not solve the entirety of the flooding problems in the Jackson area, we believe they should be considered as part of any of the alternatives considered, in order to reduce the potential and severity of flooding from large rain events and the Pearl River.

Both the Bogue Chitto National Wildlife Refuge and the Pearl River Wildlife Management Area fall in the Pearl River Basin and encompass hundreds of acres of bottomland hardwood and swamp forest. Both of these wetland forest types require periodic flooding to maintain forest health. From 1995 to 2012, the Pearl River at highway 59 flooded its banks (over 16.5 feet) in ten of the years and reached flood stage (14 feet) in all years, flooding the higher elevation bottomland hardwood forests periodically and the lower elevation swamps and sloughs in most years. Part of the reason that the Pearl River Basin forests remain healthy and thriving, including swamp that is regenerating (unlike many other areas on the coast), is because it experiences a somewhat natural flooding regime. Because the hydroperiod is very important to the health of the forests in the Pearl River Basin, The Lake Pontchartrain Basin Foundation is deeply concerned about the possible changes in hydroperiod (not just water quantity) with the construction of the proposed One Lake project, one of the alternatives being considered in Draft EIS. Therefore, we would like to see detailed analysis of the potential changes to the hydroperiod downstream of the proposed project area, including depth, duration and frequency of flooding into the two natural areas and surrounding forests. Also, the downstream effects need to be assessed not just immediately downstream of the project but all the way to the mouth of the Pearl River and into the Mississippi Sound.

Sediment transport and deposition during floods is also important for forest health. A detailed analysis of how sediment transport will be affected by the proposed One Lake Project in conjunction with the existence of the Ross Barnett Reservoir, which already limits downstream sediment transport, is required. Any significant further limitation of downstream sediment transport would be unacceptable. The effect of the One Lake Project slowing down currents, enhancing deposition as well as the installation of an additional weir/gate/dam should be investigated. The Pearl River Delta acts to buffer storm surge into the lower Pearl River Basin. Storm surge flooding here has affected communities in both Louisiana and Mississippi. Any deterioration of wetlands due to changes in hydroperiod, salinity or sediment depletion also reduces flood protection for these communities. The potential impact of the project to enhance hurricane surge flooding must be assessed.

In the Pearl River basin, on the Bogue Chitto and the Pearl Rivers, there are two sills that were installed in the 1950's to maintain water levels in the navigation canal built in 1935 to provide navigation from Bogalusa to the West Pearl River. These sills have prevented migration of important fish species. The navigation project is defunct and has been proposed for de-authorization by the Louisiana Department of Wildlife and Fisheries. We understand that the USACE supports and encourages the de-authorization of this project, making de-authorization a reality in the near future. LDWF has indicated that they are ready to remove the sills and alter the project to block the navigation canal. Since the sills alter the water level and therefore removal will alter water levels as well, we would like to see a detailed analysis of how sill removal in conjunction with the proposed alternatives would alter downstream flows and sediment transport in the Pearl River Basin.

In addition to the downstream effects mentioned above we would also like a close analysis on the effect of this project on threatened and endangered species that live in or use the area such as, the ringed-necked turtle, gopher tortoise, inflated heel splitter mussel and the Gulf sturgeon. These species could be affected by changes in hydroperiod as well as changes in water quality. It is obvious that if the One Lake project were to move forward, there would be significant development around the lake which increases the potential for altered water quality downstream. Downstream effects of the future development should be analyzed, not just the effect of creating a lake.

In conclusion, The Lake Pontchartrain Basin Foundation is concerned with the downstream effects of this project on the Pearl River Basin. The Draft EIS for this project must contain a clearly defined, adequate study area, including the entire Pearl River Basin south of the project area. The alternatives need to be clearly laid out and should include more alternatives than are currently proposed, most importantly, the development of a management relationship with the Pearl River Valley

Water Supply District. We are also deeply concerned about the alteration of hydroperiod downstream of the project and therefore no significant alteration to the depth, duration or frequency of flooding in the bottomland hardwood and swamp forests is acceptable.

Because the impact of this project could affect residents of Louisiana adversely, and because the project location is within Mississippi for the specific benefit of Mississippi residents, it is incumbent on the project developers to avoid being parochial in their analysis, and to strive for maximum amount of transparency and consideration to residents in both states, in spite of their narrow institutional mandate to protect two counties within Mississippi. This is not just a wise course of action, but the Federal requirement that they have assumed, and must follow by their election to conduct this study through their local authority.

We are very interested in the results of the Draft EIS and look forward to reading it upon its release. We strongly encourage you to include the items discussed above. Please feel free to contact us if you have any questions.

Sincerely,

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