

American Rivers * American Sportsmen Against Poachers * America's WETLAND Foundation
Atchafalaya Basinkeeper * Audubon Louisiana * Audubon Mississippi
Backcountry Hunters & Anglers * Baton Rouge Audubon Society * Capital City Kayaks
Coalition to Restore Coastal Louisiana* Coast Group of the Mississippi Chapter of the Sierra Club
Collins & Associates * Commission on Stewardship of the Environment * Crystal Seas Oysters
Delta Chapter of the Sierra Club * Dr. Wagner's Honey Island Swamp Tours
East Ascension Sportsman's League * Environmental Defense Fund * Florida Wildlife Federation
Friends of Black Bayou, Inc. * Great Egg Harbor Watershed Association
Gulf Islands Conservancy, Inc. * Gulf Restoration Network
Historic Ocean Springs Saltwater Fly Fishing Club * Holy Cross Neighborhood Association
Honey Island Kayak Tours * Jackson Audubon Society * Kentucky Resources Council
Land Trust for Louisiana * League of Women Voters – Jackson Area * Levees.org
Lost Lands Tours, LLC * Louisiana Audubon Council * Louisiana Interchurch Conference
Louisiana Wildlife Federation * Minnesota Division Izaak Walton League of America
Mississippi Chapter of the Sierra Club * Mississippi Commercial Fisheries United
Mississippi Wildlife Federation * National Audubon Society * National Wildlife Federation
New Orleans Chamber of Commerce * New Orleans Group of the Sierra Club
North Gulfport Community Land Trust * On Wings of Care, Inc. * Orleans Audubon Society
Pearl River Eco-Tours * Pearl Riverkeeper * Rapides Wildlife Association
South Mississippi Kayak Club * SouthWings, LLC
The Center for Sustainable Engagement and Development * The Episcopal Diocese of Louisiana
Tierra Resources LLC * Town of Abita Springs * Wayfarer Environmental Technologies, LLC

September 5, 2018

Via Email and U.S. Mail

Major General Richard G. Kaiser
Commander, Mississippi Valley Division
U.S. Army Corps of Engineers
1400 Walnut Street
Vicksburg, MS 39180

**Re: Integrated Draft Feasibility and Environmental Impact Statement; Pearl River Basin, MS,
Federal Flood Risk Management Project, Hinds and Rankin Counties, MS**

Dear General Kaiser,

On behalf of the 56 undersigned businesses, and organizations representing millions of members and supporters from across the country, we strongly urge you to protect the Pearl River by rejecting an ill-conceived, destructive civil works project locally known as “One Lake”. Several of these organizations will also be submitting additional comments on the project.

This current proposal involves dredging and widening 10-miles of the Pearl River and building a dam to create a 1,900-acre lake under the guise of providing dubious flood control benefits for the metropolitan

area of Jackson, Mississippi. This project poses serious threats to the ecology of Mississippi, Louisiana, and the Gulf of Mexico as well as to local and downstream communities and the region's economy.

We express our staunch opposition to this proposal as part of the public review and comment period underway for the Integrated Draft Feasibility Study and Environmental Impact Statement (DEIS) for this project, which is formally known as the Pearl River Basin, Mississippi, Federal Flood Risk Management Project, Hinds and Rankin Counties, MS. The Rankin-Hinds Pearl River Flood and Drainage Control District (Drainage District) serves as the local sponsor and has determined that One Lake is their preferred alternative, as reflected in the DEIS.

The DEIS is fundamentally flawed and appears to be strongly biased towards the highly controversial One Lake plan. The DEIS ignores and downplays adverse impacts to environmental and public health and safety. The DEIS also lacks the technical detail necessary to fully grasp the project's many direct, indirect, and cumulative impacts over the immediate and long-term. The DEIS also ignores highly practicable alternatives that could both protect the public and the environment. Additionally, the process used to develop this DEIS has not followed all required federal laws and has failed to meaningfully engage the public and concerned stakeholders.

Our objection to One Lake is based on the following:

Devastating Environmental Impacts

Recognized as one of the most intact river systems in the southeast U.S., the Pearl River supports a vast diversity of birds, fish and wildlife, and their habitats. One Lake puts these prized resources in jeopardy.

The proposal involves dredging 25 million cubic yards of sediment from a 10-mile stretch of the Pearl River and building a dam to create a 1,900-acre lake (i.e. impoundment) under the veil of flood control. It would completely destroy over 2,500 acres of wildlife habitat, including at least 1,500 acres of vitally important bottomland hardwood wetlands and floodplain habitat that also provides natural flood protection for local communities. Additional habitat losses from indirect impacts are also highly likely. The dredged sediments would be used to construct new levees, raise existing levees, and build up surrounding lands. These efforts will create new developable land that could put more homes, businesses, and property at risk of flooding.

Hundreds of species of fish and wildlife would be impacted, including several listed and at risk species. The proposed project would wipe out or damage thousands of acres of habitat for several federally threatened species including the Gulf sturgeon, Ringed sawback turtle, Wood stork, and Northern long-eared bat, as well as other important habitats that support birds, fish and other wildlife. The DEIS nevertheless contends that the project will have minimal impacts to fish and wildlife based in part on many un- or poorly substantiated statements on wildlife findings. The DEIS even fails to include readily available current population data on species such as the Ringed sawback turtle and Gulf sturgeon. Much more study must be done to properly assess the full extent of the harm to fish and wildlife from the proposed project. This includes properly conducting fish and wildlife surveys in the study area as well as within the Pearl River basin above the project (i.e. near and around the existing Ross Barnett Reservoir) and 200-miles downstream below the proposed dam in order to properly quantify the project's anticipated wildlife impacts.

In addition, as the Gulf of Mexico's fourth largest source of freshwater east of the Mississippi River, the Pearl River is a key artery to sustain the health and productivity of Mississippi Sound, Lake Borgne, and the Gulf. More than 200 miles of the Pearl flow south below the proposed dam. Changes in flow,

especially in June–October during seasonal low flow periods, could alter water quality and coastal salinities, affect sediment transport, and increase saltwater intrusion upriver. Altered flows threaten the health and productivity of additional downstream habitats that support an array of fish, birds, and wildlife. This includes over 125,000 acres of existing - and mostly public - conservation lands, such as Bogue Chitto National Wildlife Refuge, Pearl River Wildlife Management Area, and Hancock County Coastal Preserve; these areas depend on sediment and freshwater brought downstream by the Pearl.

Altered flows are expected to have serious economic repercussions too. This includes the regional nature-based tourism operators and the seafood industry, where the already struggling oyster sector relies on a well-balanced mix of fresh-salt water to ensure oyster survival and harvest. The Louisiana Oyster Task Force and the Mississippi Governor's Oyster Council have identified insufficient freshwater flows from the Pearl River to coastal waters as a major threat to oyster production in both states. Both the State of Louisiana and Mississippi Commission on Marine Resources have cited concerns about One Lake's threat to oyster production by passing unanimous resolutions against the project. Also at risk is the ecological success of many multi-million dollar restoration projects in coastal Mississippi and Louisiana as part of the 2010 Deepwater Horizon recovery effort and in plans to restore the Mississippi River Delta.

Also more than one hundred downstream industrial users and municipalities in Mississippi, and eight in Louisiana, depend on a reliable flow of freshwater from the Pearl River to meet their environmental permit discharge limits. Less freshwater flowing down river is expected to make it difficult for these permit holders to stay in compliance, which could lead to increased costs for installing new water treatment technologies in order to stay in compliance. Such users include sewage treatment plants for Jackson, Bogalusa and Pearl River as well as Georgia-Pacific and International Paper.

Serious Public Health Risks

One Lake would directly impact at least three contaminated sites, a former creosote wood treatment facility and two unpermitted landfills. There are at least five other highly contaminated properties within or near the project area, including a hazardous waste site identified for federal Superfund cleanup.

In fact, a report¹ commissioned as part of DEIS Appendix C acknowledges that most of these sites serve as an existing source of hazardous pollution and as such, pose significant immediate threats to the public health, safety, and welfare of local residents and downstream communities. These alarming findings demand the highest urgency from local, state, and federal authorities to take swift and aggressive action to protect public health.

Further, despite recognizing that these sites would require cleanup, the DEIS actually minimizes their public health threats and fails to include a plan to safeguard public health. The DEIS's \$8 million dollar estimate to perform all necessary remediation of these sites is completely unrealistic in light of the scope and scale of the pollution that is chronicled.

The project also proposes to dredge 25 million cubic yards of sediment from the Pearl River Basin that will be used for levees and land building. In addition to the existing hazardous waste sites, this activity will occur in a highly disturbed urban-rural corridor that has many sources of point and non-point pollution. However, the DEIS fails to acknowledge or evaluate the potential threats to public and

¹ Allen Engineering and Science (Sept 2014). *Environmental Evaluation of Hazardous, Toxic, and Radiological Waste (HTRW) Sites* (Project No. 14120). Ridgeland, MS: Mendrop Engineering Resources.

environmental health from digging, transporting, and redistributing these sediments. The Drainage District should be required to perform extensive public and ecological health-related sampling, both in the project area and downstream, before any further consideration is given to this project. At minimum, such testing and analysis would include water (i.e. Pearl River and tributaries, groundwater, drinking water, discharge permit holders), soils and air quality.

Study Gaps, Incomplete Science and Unanswered Questions

"Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA."² Accordingly, the DEIS must be based on "high quality" science and information and the Corps must "insure professional integrity, including scientific integrity, of the discussions and analysis in environmental impact statements."³ Importantly, if information that is essential for making a reasoned choice among alternatives is not available, the Corps **must** obtain that information unless the costs of doing so would be "exorbitant."⁴

An EIS must utilize "quantified or detailed information" when analyzing impacts.⁵ The DEIS may not rely "on conclusory statements unsupported by data, authorities, or explanatory information."⁶ Accordingly, the DEIS must supply supporting data and authorities, and explain how and why it has drawn the conclusion it has reached.

It is clear that these standards have not been met in this DEIS. Notably, the U.S. Fish & Wildlife Service⁷ made a striking conclusion in their assessment of the DEIS, that the Drainage District should be required to produce a second draft DEIS that would provide "greater details regarding plan formulation, design, operation, mitigation, and adaptive management" before the project advances.

Indeed, the DEIS is rife with significant omissions that are discussed in the other sections of these comments. In addition, during the 2013 scoping process to develop this DEIS, many stakeholders, including environmental groups and state resource agencies, urged the Drainage District to take a comprehensive look at the project's true footprint, which would include the 200-mile stretch of the Pearl River basin below the proposed dam as well as the State of Louisiana, Mississippi Sound, Lake Borgne, and the Gulf of Mexico. The DEIS study area, however, remains limited to the project footprint, ending just south of the project site.

² 40 C.F.R. § 1500.1(b).

³ 40 C.F.R. § 1502.24 ("Agencies shall insure professional integrity, including scientific integrity, of the discussions and analysis in environmental impact statements"); *Earth Island Inst. v. U.S. Forest Service*, 442 F.3d 1147, 1159-60 (9th Cir. 2006) (quoting 40 CFR §1502.24).

⁴ 40 C.F.R. § 1502.22. During the November 9, 2015 Public Meeting on the DEIS (in Eastpoint, FL), a representative of the Corps advised the public that the Corps would not research a public comment on a technical issue unless the comment was accompanied by data and analysis that demonstrates the point made. This demonstrates a severe misunderstanding of the rules that govern preparation of an EIS. As noted above, the Corps (not the public) must obtain information that is essential for making a reasoned choice among alternatives. It is also the Corps responsibility to prepare the EIS in a manner that complies with NEPA, and that includes obtaining and providing important information on alternatives and possible impacts.

⁵ *Neighbors of Cuddy Mountain v. U. S. Forest Service*, 137 F.3d 1372, 1379 (9th Cir. 1998); *Ecology Center v. Castaneda*, 574 F.3d 652, 666 (9th Cir. 2009) (requiring "quantified or detailed data"); *Natural Resources Defense Council v. Callaway*, 524 F.2d 79, 87 (2^d Cir. 1975).

⁶ *Id.*

⁷ U.S. Department of the Interior Fish & Wildlife Service (Lafayette, LA). Letter to: Michael E. Goff (President, Headwaters, Inc., PO Box 2836, Ridgeland, MS). 2018 Aug 16.

This is a serious omission given the dramatic scale and scope of potential environmental impacts from One Lake. The study area must be expanded to reflect its geographic reach and more rigorous, science-based analyses and hydrologic modeling of downstream impacts are vital to assess downstream issues.

Another serious failure of the DEIS is that it does not give any consideration to the existing Ross Barnett Reservoir and Spillway located just seven miles upstream of the proposal, nor how these two projects would be managed or operated in conjunction with one another. Specifically the Ross Barnett Reservoir is appropriately managed in such a way to release floodwaters from the upper Pearl River Basin through the Jackson metro area without either back flooding urban creeks, or overtopping existing levees. Therefore, modeling upstream of the proposal is essential as well.

Clearly, the DEIS is technically unfeasible and scientifically unsound, and much more due diligence is needed to provide the level of detail and rigorous analyses essential to satisfy scrutiny by the public, concerned stakeholders, and resource agencies. Until the multitude of outstanding questions are answered, One Lake should not receive any further attention.

Inadequate Alternatives Analysis and Questionable Costs

Since the 500-year flood of record in 1979, several plans to address flooding from the Pearl River have been introduced for the Jackson metropolitan area. Almost four decades later, no plan has yet been implemented.

Flood control plans developed before 1996 emphasized improvements to existing levees, raising buildings and homes, or buying out properties with historical flooding problems. In 1996, a local businessman proposed the first of several plans to dam the Pearl River south of Jackson, with the well-publicized goal of creating developable waterfront property along with questionable flood control benefits. One Lake is the latest iteration of this original idea, which is the Drainage District's locally preferred option and according to the DEIS, is the best alternative to address flooding issues.

However, the DEIS ignores or downplays these previous reports and analyses and fails to evaluate a full range of reasonable alternatives as required by the National Environmental Policy Act (NEPA). The DEIS instead appears to have been written for the purpose of justifying the One Lake alternative.

For example, a Mississippi Legislative PEER Report⁸ determined, "A Comprehensive Levee Plan would be less expensive than a lake plan." The levee option reviewed in the PEER report did not include pumps yet the DEIS added them to Alternative B (Levee Plan) without any technical or science-based rationale. By doing so, this added significant cost to the levees-only option and resulted in the One Lake alternative appearing to be more cost-effective. Furthermore, the PEER report determined that the flood control plans proposed before 1996 offered less costly options that would better address flooding concerns.

The DEIS also fails to consider the highly practicable solution of utilizing floodplain restoration either alone or in combination with common sense measures like targeted flood proofing and relocations, and levee setbacks. The absence of a meaningful evaluation of this type of alternative renders the DEIS inadequate.

⁸ Joint Legislative Committee on Performance Evaluation and Expenditure Review (PEER) Report for the Mississippi Legislature (2010 Oct 12). *A Review of Flood Control Options for the Jackson Metropolitan Area, 1979-2010* (PEER Report #540). Jackson, MS: The Mississippi Legislature PEER Committee.

A flood control project for the Pearl River Basin was authorized under Section 3104 of the Water Resources Development Act (WRDA) of 2007, which requires that the plan be “environmentally acceptable and technically feasible”. When taking into consideration the U.S. Fish & Wildlife Service’s letter (referenced in the previous section) that found One Lake to be “the most environmental damaging plan” considered in the DEIS, the Drainage District clearly has failed to thoroughly evaluate all possible flood control alternatives. Additional options would include non-structural approaches and the use of natural infrastructure.

Finally, as stated in the DEIS, many of its cost projections rely on numerous assumptions or unknowns. Costs that are totally absent from or appear significantly underestimated in the DEIS budget projections include mitigation plans, hazardous/toxic site remediation, contaminated sediment testing and water sampling, and relocating infrastructure (i.e. roads, bridges, railroad lines, utilities). These economic discrepancies signal that the true costs of One Lake will likely well exceed the estimated construction and annual maintenance cost of \$345 million and \$13.9 million, respectively.

These poorly substantiated economics and unaccounted costs are unacceptable given the size and scope of One Lake. These irresponsible economics are even more outrageous when considering the proposal has been – and is expected to remain – funded solely at taxpayers’ expense.

Disregard for Federal Law and Lack of Transparency

The DEIS is being conducted under Section 211 of the Water Resources Development Act of 1996, which directs the Drainage District to comply with all federal environmental laws and planning requirements in the same manner as if the Corps were preparing this study. However, the DEIS is missing crucial information that is required to be prepared for this project. This includes, the Fish and Wildlife Coordination Act Report, a Biological Opinion (in response to the Biological Report that was released late into the public comment period), and Independent External Peer Review Report. The absence of these critical documents has prevented the public and concerned stakeholders from fully assessing – and commenting on - the true extent of One Lake’s impacts. The Corps should take over this review process and restart the comment period when all necessary documents are made publicly available.

The Drainage District also has been delinquent in promoting purposeful public participation in the decision-making process for this DEIS. Such failures include:

- No official notice in the Federal Register nor any communications to those who filed scoping comments in 2013, impacted local/downstream communities or states, or other concerned stakeholders.
- A very short 45-day public comment period, which was poorly re-noticed when it was extended in response to the release of the required Biological Assessment.
- A website that does not prominently list the comment deadline or provide direction to the public for making comments, and obligating the public to request receipt of the DEIS documents. Given widespread feedback from stakeholders who have attempted to navigate the website and have yet to receive responses to their requests to obtain a copy of the DEIS documents, many technical issues remain. This has stymied public input.
- Poorly noticed and organized public meetings that were designed to suppress public input, such as having no signage, withholding meeting details until well into the comment period, and failing to incorporate an audience-based Question-&-Answer component, which ignored current and past requests from the 2013 scoping process.

In summary, we reiterate our opposition to One Lake based on the devastating environmental harm, community impacts, and economic consequences it poses. The current DEIS is woefully inadequate – it makes countless unsubstantiated assertions, lacks technical detail, requires extensive environmental sampling, and demands more rigorous modeling of immediate and up/downstream impacts – all of which is essential for proper review by the public, concerned stakeholders and communities, and natural resource agencies. The DEIS process has failed to engage the public in a timely and sufficient manner, and it does not comply with federal laws. Given these grave shortcomings, we respectfully urge the Corps to reject this proposal. Please contact Jill Mastrototaro at Audubon Mississippi (jmastrototaro@audubon.org) if you have any questions or need additional information.

Sincerely,

American Rivers

American Sportsmen Against Poachers

America's WETLAND Foundation

Atchafalaya Basinkeeper

Audubon Louisiana

Audubon Mississippi

Backcountry Hunters & Anglers

Baton Rouge Audubon Society

Capital City Kayaks

Coalition to Restore Coastal Louisiana

Coast Group of the Mississippi Chapter of the Sierra Club

Collins & Associates

Commission on Stewardship of the Environment

Crystal Seas Oysters

Delta Chapter of the Sierra Club

Dr. Wagner's Honey Island Swamp Tours

East Ascension Sportsman's League

Environmental Defense Fund

Florida Wildlife Federation

Friends of Black Bayou, Inc.

Great Egg Harbor Watershed Association

Gulf Islands Conservancy, Inc.

Gulf Restoration Network
Historic Ocean Springs Saltwater Fly Fishing Club
Holy Cross Neighborhood Association
Honey Island Kayak Tours
Jackson Audubon Society
Kentucky Resources Council
Land Trust for Louisiana
League of Women Voters – Jackson Area
Levees.org
Lost Lands Tours, LLC
Louisiana Audubon Council
Louisiana Interchurch Conference
Louisiana Wildlife Federation
Minnesota Division Izaak Walton League of America
Mississippi Chapter of the Sierra Club
Mississippi Commercial Fisheries United
Mississippi Wildlife Federation
National Audubon Society
National Wildlife Federation
New Orleans Chamber of Commerce
New Orleans Group of the Sierra Club
North Gulfport Community Land Trust
On Wings of Care, Inc.
Orleans Audubon Society
Pearl River Eco-Tours
Pearl Riverkeeper
Rapides Wildlife Association
South Mississippi Kayak Club
SouthWings, LLC
The Center for Sustainable Engagement and Development

The Episcopal Diocese of Louisiana

Tierra Resources LLC

Town of Abita Springs

Wayfarer Environmental Technologies, LLC

Cc: Rankin-Hinds Pearl River Flood and Drainage Control District

BENNIE G. THOMPSON
SECOND DISTRICT, MISSISSIPPI

COMMITTEE ON
HOMELAND SECURITY
RANKING MEMBER

WASHINGTON OFFICE:
2466 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-2402
(202) 225-5876
(202) 225-5898: FAX

E-Mail: benniethompson@mail.house.gov
Home Page: <http://www.benniethompson.house.gov>

CONGRESSIONAL BLACK CAUCUS
CONGRESSIONAL GAMING CAUCUS
CONGRESSIONAL PROGRESSIVE CAUCUS
CONGRESSIONAL SPORTSMEN'S CAUCUS
CONGRESSIONAL RURAL CAUCUS
HOUSE EDUCATION CAUCUS

Congress of the United States
House of Representatives
Washington, DC 20515-2402

August 27, 2018

Mayor Gary Rhoads, President
Rankin Hinds Pearl River Flood and Drainage Control District
P.O. Box 320790
Flowood, MS 39232

Dear Mayor Rhoads:

Recently, several questions and concerns have been brought to my attention concerning the proposed One Lake Project sponsored by the Rankin Hinds Pearl River Flood and Drainage Control District.

To have a better understanding of this project and address the concerns of my constituents, I would like your written response to the attached questions. You may send your reply to me at my Bolton District Office, P.O. Box 610, Bolton, MS 39041 by September 14, 2018.

You may direct any questions or concerns relative to this letter, to Ms. Fannie Ware at 601-866-9003 or fware@mail.house.gov.

Sincerely,



Bennie G. Thompson
Member of Congress

Attachment

Cost/Benefit Questions:

1. **Per HB 1585, what would be the estimated annual ad valorem tax increase per affected property owner in Rankin and Hinds Counties?**
2. Will this lake help or complicate the urban creek drainage and flash flooding (non-river related) problem in Jackson? For instance, Eubanks Creek flooded in Fondren on the weekend of August 11, 2018, when the Pearl River was at normal low flow. **How would a lake that adds 8 feet to the river's surface elevation affect normal street flooding during heavy rains in Jackson?**
3. **What management authority will own the project and control water levels and releases? What will they base these decisions on?**
4. The Pearl River Valley Water Supply District, is responsible for the managing and maintaining the Ross Barnett Reservoir and Spillway. This proposal would create a dam, which, along with the existing Reservoir Spillway, means that two sets of flood gates will require tandem operation. **As such, how has the Pearl River Valley Water Supply District been consulted in the planning and design of this proposal? What are the plans for future management coordination? How will the state-required water levels in both the existing Reservoir and the planned lake be maintained?**
5. **How will the Ross Barnett Reservoir be used in combination with this proposed new lake to control floods in Jackson? Please provide any written agreements that show collaboration.**
6. **How will sewage overflows in the 11 urban creeks affect a newly built lake?**
7. **What is the comparative benefit of a lake for the City of Jackson and Hinds County versus Rankin County?** Specifically, the project would create more private riverbank in Rankin County whereas there would be more city and state-owned lands created in Hinds County.
8. The Pearl is a "working river" in both Mississippi and Louisiana, with over 100 NPDES discharge permits in Mississippi, and 8 in Louisiana. Most of the larger permits are municipal sewage treatment plants that need adequate dilution for them to function without violating their effluent limits. Jackson Savannah Street, GP Monticello and IP Bogalusa are three of the largest. For example, the St. Tammany Parish Council passed a resolution in 2013 against the dam project in Jackson, citing water stress from lake evaporation and worsening low flow as threats to the lower river's ecology, fisheries, eco-tourism businesses, and to industrial permit holders like IP Bogalusa. **Precisely how many NPDES permits will be impacted by this project due to lower freshwater flows? In other words, what impacts will this project have on industrial users and municipalities that rely on stable freshwater flow for adequate dilution of their**

discharges, such as International Paper, Georgia-Pacific, and the towns of Bogalusa and Pearl River?

- 9. The Mississippi Marine Resources Commission (passed in January 2015) and the Louisiana House and Senate during the 2018 session (SCR5), have resolutions against the project. In Louisiana both the Louisiana Department of Wildlife & Fisheries and the state's Coastal Protection and Restoration Authority were critical of this project in their 2013 scoping comments. Also, every county and parish government south of Columbia, Mississippi, is on record with resolutions against this project: Lawrence, Marion, Pearl River and Hancock Counties in Mississippi, plus Washington and St. Tammany Parishes and the towns of Monticello, MS, and Bogalusa, Pearl River and Slidell in Louisiana. **How will the economic, environmental, and community-based concerns expressed by this significant opposition be weighed against the dubious flood control benefits of this project?****

Other Issues:

- 10. Please provide my office with your Annual Reports for years 2011-2017.**
- 11. Please provide a list of any paid employees, salaried or contractual employees, Engineers, Lobbyists, Attorneys, Consultants and all other professionals who have worked on this project.**
- 12. What provisions are in place to assure opportunities will be made available to minority businesses, if this project is funded? Please provide a copy of your minority business opportunity plan that will ensure outreach to and inclusion of minority businesses.**
- 13. Identify property owners who own property in the project footprint, or property that could benefit from the project (i.e. for example, property that would become lake "waterfront", or be filled so that the property would no longer be in the floodplain and could be more readily developed). Is there a contaminated creosote site in the project area and what is the projected clean-up cost that will be at tax-payers' expense?**
- 14. Do any of the Rankin-Hinds Flood and Drainage Control District board of directors or employees own any property in the project footprint or property that would benefit from the project?**
- 15. Please provide copies of your Audited Financial Statements for years 2007-present.**
- 16. Do any federal, state or local elected officials or any of their direct relatives own property in the project area, or hold any pecuniary interest in the project?**

BENNI E. G. THOMPSON
SECOND DISTRICT, MISSISSIPPI

COMMITTEE ON
HOMELAND SECURITY
RANKING MEMBER

WASHINGTON OFFICE:
2466 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-2402
(202) 225-5876
(202) 225-5898: FAX

E-Mail: benniethompson@mail.house.gov
Home Page: <http://www.benniethompson.house.gov>

CONGRESSIONAL BLACK CAUCUS
CONGRESSIONAL GAMING CAUCUS
CONGRESSIONAL PROGRESSIVE CAUCUS
CONGRESSIONAL SPORTSMEN'S CAUCUS
CONGRESSIONAL RURAL CAUCUS
HOUSE EDUCATION CAUCUS

Congress of the United States
House of Representatives
Washington, DC 20515-2402

August 27, 2018

Colonel Michael C. Derosier
Commander
U.S. Army Corps of Engineers
4155 Clay Street
Vicksburg, MS 39183

RE: One-Lake Project Sponsored by Rankin Hinds Pearl River Flood and Drainage
Control District

Dear Colonel Derosier:

A number of questions have been brought to my attention by constituents relative to the proposed One Lake Project sponsored by the Rankin Hinds Pearl River Flood and Drainage Control District (Drainage District). I would like to have a written response to these questions as outlined below.

Process Questions:

- 1. Is the Corps handling the National Environmental Policy Act (NEPA) filing requirements and public outreach and comment periods for this project as required by your own Engineering Regulations? If so, please provide written documentation to prove it.**
- 2. Is the Corps handling the "peer, policy and legal reviews" for this Section 211 of the Water Resources Development Act (WRDA) study as also required by the Corps' Engineering Regulations? ER 1105-2-100 Appendix H, Amendment #1 20 Nov 07. If so, please provide written documentation of your compliance with this engineering regulation.**
- 3. Did the Corps sign off on releasing this Integrated Draft Feasibility Study and Environmental Impact Statement (EIS) for public comment? Did the sign-off include addressing the many problems identified in the Draft EIS and the process being used by the Drainage District? If so, please provide the written justification for the sign-off.**
- 4. What is the status of the Independent External Peer Review (IEPR) for this project? Was the Draft EIS released without providing the public the benefit of the IEPR? If not, please provide the written justification for not doing so.**

107 WEST MADISON STREET
P.O. Box 610
BOLTON, MS 39041
(601) 866-9003
(601) 866-9036: FAX
(800) 355-9003: IN ST.

728 MAIN STREET, SUITE A
GREENWOOD, MS 38930
(662) 455-9003
(662) 453-0118: FAX

910 COURTHOUSE LANE
GREENVILLE, MS 38701
(662) 335-9003
(662) 334-1304: FAX

3607 MEDGAR EVERS BOULEVARD
JACKSON, MS 39213
(601) 946-9003
(601) 982-5337: FAX

263 EAST MAIN STREET
P.O. Box 356
MARKS, MS 38646
(662) 326-9003
(662) 326-9003: FAX

MOUND BAYOU CITY HALL
P.O. Box 679
106 GREEN AVENUE, SUITE 106
MOUND BAYOU, MS 38762
(662) 741-9003
(662) 741-9002: FAX

5. **Has the Corps released information on the IEPR for this project as required by law? If so, provide information that includes date of release and how.**
6. **Has the Biological Opinion of the US Fish & Wildlife Service (USFWS) on threatened or endangered species or the Independent External Peer Review (IEPR) been released during the public comment process? If so, please provide dates and times of release along with a copy of the release.**
7. **Has the Vicksburg Corps responded completely to a July 3, 2018, letter sent by 25 non-profit groups requesting the Corps to take over the NEPA public comment and outreach process for this project, and re-start the public notice period over when all the missing documents (Biological Opinion, IEPR, Fish & Wildlife Coordination Act report and Biological Assessment) were added? If not, what issues remain outstanding in response to this letter.**
8. **Is the Vicksburg Corps leading the Agency Technical Review (ATR) process for this project? If not, please outline the agencies involved and who is the lead, and why?**
9. **Will the Vicksburg's Corps District be expected to manage the construction of this project?**
10. **Was the Draft Environmental Impact Statement (DEIS) released to the public without having final ATR comments from Corps staff reviewers around the country? If not, please provide written justification as to the reason for not having the reviews completed.**
11. **Did the 3 public meetings held during the comment period include the opportunity for the public to openly ask the project leaders at the Drainage District questions that could be answered so that everyone in the room could hear both question and answer? If not, why?**
12. **Did the Drainage District public comment process allow for everyone in the room to hear individual questions and individual responses from the audience? Please explain the format used for the public comment process.**
13. **In that the U.S. Fish & Wildlife Service (USFWS) comment letter dated 8/16/2018 to Mr. Michael E. Goff (President, Headwaters, Inc. and consultant for the Drainage District) has recommended a second draft EIS is needed to provide "greater details regarding plan formulation, design, operation, mitigation, and adaptive management" before the project advances, what will be the process utilized to reflect this recommendation?**

Authorization Issue:

- 14. Does the Corps believe that the project proposed in the Draft EIS is already authorized as stated in the Draft EIS, or does the Corps believe that new/additional Congressional authorization is required?**

Public Safety Questions:

- 15. Does the Corps believe that it is appropriate to create opportunities—and promote—new development in areas that will be highly susceptible to flooding during larger flood events? Who will bear the burden of those large floods when they come?**
- 16. Given the magnitude and cost of this project, why is the horizon for this project less than 50 years, and the fact that it is unlikely to be completed for several years even if approved?**
- 17. According to the Draft EIS there are a number of contaminated sites that will be impacted by this proposed project. What steps would be carried out to fully protect the public from toxic discharges from these locations and how much would that cost? Please explain why a detailed remediation plan and associated accurate calculation of costs are not included in the plan. Does the Corps recognize these costs as constituting a direct project cost that should be fully accounted for? If not, why not?**
- 18. How can the Corps guarantee that the public will not be exposed to toxic contamination as a direct result of the project? Will the Corps require testing and impact assessments before a decision is made on this project?**

Adverse Environmental Impacts:

- 19. Does the Corps believe that the draft EIS satisfies all the requirements of the National Environmental Policy Act? If so, why? If not, what does the Corps intend to do about it?**
- 20. The draft EIS does not address a single requirement of the mitigation planning reforms enacted in the Water Resources Development Act of 2007 more than a decade ago. Did the Corps approve the discussion of “mitigation” in the draft EIS? If so, how does the Corps justify its position? If not, why did the Corps allow release of this draft EIS?**
- 21. What more detailed analyses are planned to assess the project’s impacts both immediate (footprint) and downstream to Mississippi Sound, the Pearl River Delta, and the Northern Gulf of Mexico?**

22. This project involves dredging nearly 10-miles of the Pearl River and building a dam to create a 1,900-acre lake (i.e. impoundment). **What mitigation plan, if any, is being considered, and what will it cost taxpayers? Please take into consideration wildlife habitat as well as impact on state and federally protected species.**
23. If completed, this project will result in promoting extensive new urban development in the Pearl River floodplain. Given this far-reaching result, the Drainage District should be required to complete a Programmatic Environmental Impact Statement to better understand the project's direct (immediate) and indirect (i.e. future development) impacts on the Pearl River, ecological resources, and local-downstream communities. **What consideration has the DEIS given to inducing further development, and the further ecological impacts (i.e. destroying habitat, impacting wildlife, amplifying water quality and pollution problems) this development will cause?**
24. This project proposes to dredge 25 million cubic yards of sediment from 10 river miles. This material will be placed as fill in the current river floodplain in-order to support new levees and development. **Has any sedimentation sampling been performed to identify potential contamination from legacy pesticides or heavy metals, especially samples from sites that have been identified as Hazardous-Toxic-Radiological Waste areas? If so, what are the results?**

Cost/Benefit Questions:

25. **What are the number of homes and businesses that will be flood-free because of this project, versus those that will only have a reduction in flood stage?**
26. **Currently how much local and federal monies have been spent (or committed) to date, on Pearl River flood control studies, and what are their sources?**
27. **Who pays for the design and construction, and upon completion, daily management and annual maintenance of the lake (i.e. impoundment), levees, and dam?**
28. **What is the proposed cost to taxpayers for constructing this project?**
29. HB 1585 allows all maintenance costs to be covered by property owners of Rankin and Hinds Counties who will be directly or indirectly benefited. The estimated annual maintenance costs are projected at \$13.9 million. **What is the actual cost to taxpayers for the annual maintenance of this proposed project?**

30. The Pearl is a “working river” in both Mississippi and Louisiana, with over 100 NPDES discharge permits in Mississippi, and 8 in Louisiana. Most of the larger permits are municipal sewage treatment plants that need adequate dilution for them to function without violating their effluent limits. Jackson Savannah Street, GP Monticello and IP Bogalusa are three of the largest. For example, the St. Tammany Parish Council passed a resolution in 2013 against the dam project in Jackson, citing water stress from lake evaporation and worsening low flow as threats to the lower river’s ecology, fisheries, eco-tourism businesses, and to industrial permit holders like IP Bogalusa. **Precisely how many NPDES permits will be impacted by this project due to lower freshwater flows? In other words, what impacts will this project have on industrial users and municipalities that rely on stable freshwater flow for adequate dilution of their discharges, such as International Paper, Georgia-Pacific, and the towns of Bogalusa and Pearl River?**
31. Two paper mills on the Pearl River, each supplying 400-500 jobs are concerned about flow being diminished and their discharge permits being impacted by becoming more expensive and uncertain if a new lake is built on the Pearl in Jackson. GP Monticello, and IP Bogalusa. **How will this project impact these businesses?**
32. Evaporative losses from the project’s lake surface have been estimated by St. Tammany Parish engineers to be an impact in combination with the frequent low flows on the Pearl that take the river below the critical low flow floor of 227 cubic feet per second (cfs) needed for Jackson’s Savannah Street Sewer plant to operate within its permit limits. **What affect will this project have on Jackson’s Savannah Street Sewer plant to operate within its limits?**
33. Excursions below this amount negatively impact water levels in the lower Pearl, and when they happen during drought conditions can affect coastal salinities, wildlife habitat and cause increasing saltwater intrusion upriver in Hancock and St. Tammany. **How will this project affect flow rates and subsequent impacts to wildlife habitat and saltwater intrusion?**
34. Mississippi’s annual \$891 million seafood industry supports 9,491 jobs (Source: *MSU Extension, 2/13/2018*). The Mississippi Governor’s Oyster Council 2015 final report recognized the threat to oyster recovery from upstream freshwater-depleting projects. A new Pearl dam is such a project. Furthermore, the Mississippi Commission on Marine Resources passed a resolution against damming the Pearl in 2015. The main concern is the threat to oyster restoration and oyster harvest. **How will this project impact Mississippi’s seafood industry?**

35. The Louisiana Oyster Task Force, an industry group sponsored by the Louisiana Department of Wildlife and Fisheries, asked Louisiana's Department of Natural Resources to review and reject this project to dam the Pearl River due to damage to the coastal zone. **How will this project impact Louisiana's seafood industry?**
36. **What are the low flow impacts to NASA's Stennis Space Center regarding barge traffic as well as to the US Navy SEALs' training site on the lower Pearl River?**
37. As part of the 2010 Deepwater Horizon oil disaster recovery process, hundreds of millions of dollars in restoration projects underway or planned for coastal Mississippi and Louisiana. For example, the \$50 million dollar Heron Bay marsh-oyster project in Hancock County is located just east of the mouth of the Pearl River and depends on adequate fresh water flows from the river for its oyster and marsh restoration components to thrive and be healthy. **How will this project impact the anticipated restoration benefits of these recovery projects?**
38. The Mississippi Marine Resources Commission (passed in January 2015) and the Louisiana House and Senate during the 2018 session (SCR5), have resolutions against the project. In Louisiana both the Louisiana Department of Wildlife & Fisheries and the state's Coastal Protection and Restoration Authority were critical of this project in their 2013 scoping comments. Also, every county and parish government south of Columbia, Mississippi, is on record with resolutions against this project: Lawrence, Marion, Pearl River and Hancock Counties in Mississippi, plus Washington and St. Tammany Parishes and the towns of Monticello, MS, and Bogalusa, Pearl River and Slidell in Louisiana. **How will the economic, environmental, and community-based concerns expressed by this significant opposition be weighted against the dubious flood control benefits of this project?**

I would very much appreciate a detailed written response by September 14, 2018. Please send your response to my Bolton district office at P.O. Box 610, Bolton, MS 39041. If you have any questions relative to this request, you may contact Fannie Ware, my district director in writing at my Bolton district office address; by phone at 601-866-9003 or via email at fware@mail.house.gov.

Sincerely,



Bennie G. Thompson
Member of Congress

BENNIE G. THOMPSON
SECOND DISTRICT, MISSISSIPPI

COMMITTEE ON
HOMELAND SECURITY
RANKING MEMBER

WASHINGTON OFFICE:
2466 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-2402
(202) 225-5876
(202) 225-5898: FAX

E-Mail: benniethompson@mail.house.gov
Home Page: <http://www.benniethompson.house.gov>

CONGRESSIONAL BLACK CAUCUS
CONGRESSIONAL GAMING CAUCUS
CONGRESSIONAL PROGRESSIVE CAUCUS
CONGRESSIONAL SPORTSMEN'S CAUCUS
CONGRESSIONAL RURAL CAUCUS
HOUSE EDUCATION CAUCUS

Congress of the United States
House of Representatives
Washington, DC 20515-2402

August 27, 2018

Major General Richard G. Kaiser
Commander, Mississippi Valley Division
US Army Corps of Engineers
1400 Walnut Street
Vicksburg, MS 39180

Re: Integrated Draft Feasibility & Environmental Impact Statement; Pearl River Basin,
Mississippi, Federal Flood Risk Management Project Hinds and Rankins Counties, MS

Dear Commander Kaiser:

I write to express grave concerns regarding a federal project proposed in my district. The Integrated Draft Feasibility Study & Environmental Impact Statement for this project, locally known as "One Lake" and formally known as the Pearl River Basin, Mississippi, Federal Flood Risk, Management Project, Rankin and Hinds Counties, MS, is currently under public review and comment through September 6th, 2018. This document (the DEIS) was prepared by the Rankin-Hinds Pearl River Flood and Drainage Control District (Drainage District), which serves as the project's local sponsor. As a matter of law, this study must comply with all federal environmental laws and planning requirements that would apply if the Pearl River study was being prepared by the US Army Corps of Engineers (Corps).

I have heard from many of my constituents about this highly controversial project who have highlighted a multitude of serious, unresolved economic and environmental issues that demonstrate its fiscal imprudence and destructive nature. Based on this information, including the fact that the Drainage District is not fully complying with federal law, I strongly object to One Lake and urge the Corps to reject this project.

My objection is supported by, but not limited to, the following issues:

Lack of Compliance with Federal Laws

The DEIS is being conducted under Section 211 of the Water Resources Development Act of 1996. Since Section 211 does not waive any laws or planning requirements, the Drainage District is required to comply with all federal environmental laws and planning requirements that would apply if this study was being prepared by the Corps. But this has not happened.

For example, the DEIS does not comply with the National Environmental Policy Act. Among many other problems, it fails to evaluate highly reasonable alternatives, fails to evaluate the project's adverse impacts to a wide range of fish and wildlife species and vital habitats; and is scientifically unsound. The DEIS does not comply with the mitigation requirements established

107 WEST MADISON STREET
P.O. Box 610
BOLTON, MS 39041
(601) 866-9003
(601) 866-9036: FAX
(800) 355-9003: IN ST.

728 MAIN STREET, SUITE A
GREENWOOD, MS 38930
(662) 455-9003
(662) 453-0118: FAX

910 COURTHOUSE LANE
GREENVILLE, MS 38701
(662) 335-9003
(662) 334-1304: FAX

3607 MEDGAR EVERS BOULEVARD
JACKSON, MS 39213
(601) 946-9003
(601) 982-5337: FAX

263 EAST MAIN STREET
P.O. Box 356
MARKS, MS 38646
(662) 326-9003
(662) 326-9003: FAX

MOUND BAYOU CITY HALL
P.O. Box 679
106 GREEN AVENUE, SUITE 106
MOUND BAYOU, MS 38762
(662) 741-9003
(662) 741-9002: FAX

The DEIS also was initially released without critically important and required information, including a Biological Assessment and corresponding Biological Opinion, and the mandatory Fish and Wildlife Coordination Act Report. While a draft Biological Assessment was subsequently released, the Fish and Wildlife Coordination Act Report still has not been completed—and of course, the information from that report has not been considered in developing the DEIS. The draft Biological Assessment clearly shows that a formal Biological Opinion will be required for the project, and of course this also has not been finalized or provided to the public for review.

To date, the Drainage District also has not complied with the Independent External Peer Review (IEPR) process established by the Water Resources Development Act of 2007 (33 USC 2343). One Lake is a highly controversial civil works project that will cost well over \$200 million, which triggers a mandatory IEPR under 33 USC 2343(a). The law requires the public to be provided with information on the timing of the IEPR, the entity that has the contract for the IEPR review, and the names and qualifications of the IEPR panel members at the very beginning of the IEPR process. To date, no information has been provided publicly as required by law.

Inadequate Opportunity for Meaningful Public Review

The National Environmental Policy Act (NEPA) requires the Corps, or in the case of One Lake, the Drainage District, to facilitate public involvement in decision making to the fullest extent possible, including providing a meaningful opportunity for the public to provide comments on draft environmental impact statements. Given the severe and extensive impacts posed by One Lake to Mississippi communities, our economy, and the environment, the Drainage District has failed to provide a meaningful opportunity for public review, by among other things:

- Failing to provide meaningful public notice. There was no notice of the public comment period in the Federal Register, nor through direct mailings to the many interested parties (including to the individuals and organizations that filed scoping comments in 2013 and to the communities that have formally opposed the project), nor through the many other means recommended in the NEPA implementing regulations.
- Utilizing an inappropriately short 45-day public comment period. The complex nature and significant impacts of this project, and the controversy surrounding this project, make the 45-day public comment period far too short. The fact that there are several key materials that were provided late into the public comment period, or that still remain missing from the DEIS (the clearly required Biological Opinion, Fish and Wildlife Coordination Act report, Independent External Peer Review Report) prevents the public from fully understanding the extent of the project's impacts, and has added to the difficulty in providing effective comments in this short time period.
- Against the request of many concerned stakeholders during the 2013 scoping process for this DEIS, the Drainage District intentionally structured its public meetings to be as limiting to public participation as possible. This included no signage outside the venues to direct attendees, not allowing a formal audience Question-&-Answer component, and

placing a stenographer off to one side with little direction given to encourage attendees to provide their comments. With regards to the Pearlinton, MS, meeting, it was held in a location that was not conveniently accessed by most of the affected downstream/coast communities. Also other than the August 2nd, 2018, public meeting in Jackson, the other two meetings were not announced until well into the comment period, which provided little notice for the public to plan their attendance. Finally, it should be recognized that the Drainage District was compelled to add the third meeting, and the only meeting held in Louisiana, in response to the request of state and local political leaders.

- The Drainage District was compelled to re-start the 45-day comment period because they failed to include the required Biological Assessment (BA) when the DEIS was originally released on June 23, 2018. The BA was finally released a full month later, resulting in the adjusted comment deadline of September 6th, 2018. However, the DEIS is still missing the Fish and Wildlife Coordination Act Report, a Biological Opinion (which is clearly required by the Endangered Species Act), and details about the IEPR process. These major deficiencies prevent the public and decision makers from fully analyzing the adverse ecological impacts of this project.

Due to these critical shortfalls, and the many failings with the DEIS, the Corps should take over the public notice and review process as required by their planning regulations. If the Corps determines that this study should continue, it should fundamentally reassess alternatives for reducing flood damages, prepare a legally adequate DEIS, and restart the comment period when the DEIS and all documents required by law are made available to the public. Any such new public comment period should be initiated through an official public notice in the Federal Register coupled with additional meaningful efforts to notify members of the public - including my constituents - as outlined in the regulations that implement NEPA.

Unacceptable Public Health & Safety Impacts

- One Lake is being touted as a panacea for protecting the metro Jackson community from another flood event like that of the 1979 Easter Flood. However, the 1979 flood of record was a 1,000-year flood event, whereas One Lake is designed to alleviate flooding for a 100-year flood event. Clearly One Lake is being sold under the illusion of flood control and falls well short of providing any meaningful protection for metro Jackson. Also the DEIS fails to identify the number of homes and businesses that will be flood-free as a result of this project, versus those that will only have a reduction in flood stage.
- This project would promote new development in the floodplain and will destroy over 1,000 acres of wetlands that provide natural flood protection for the existing community, thereby placing more structures and property at risk of flooding.
- The proposal would impact at least three contaminated sites (i.e. former Gulf States Creosote Wood Treatment Facility, unpermitted LeFleur's Landfill, unpermitted Gallatin Street Landfill). At least five additional highly contaminated sites are also located within

or near the project area, including the Sanford Products Lumber Mill, which is listed on EPA's National Priorities List for Superfund cleanup. The DEIS acknowledges that some remediation and mitigation would be required to address these contaminated sites, however, it downplays the existing public health threats of these locations and it fails to provide a plan to ensure that the public will be adequately protected from exposure to these hazardous sources. Such remediation and mitigation are likely to cost tens of millions of dollars, yet the DEIS provides a fundamentally false estimate (\$8 million) of the true cost to taxpayers. Realistic costs to develop and implement remediation plans for these sites must be accounted for.

- The Pearl River runs through rural and urban areas subject to high concentrations of toxic pollutants, pesticides, and fertilizers. However, no testing has been carried out to determine the level of toxicity and contamination for the 25 million cubic yards of sediments that will be dredged and used as fill to build up land around the created lake for future development. The DEIS does not assess the potential for - or impacts of - resuspending or redistributing these sediments in the environment, nor the public and ecological health threats associated with these activities.

The One Lake proposal should be rejected because it imposes unacceptable risks to the health, safety, and welfare of the public, including my constituents.

Unacceptable Environmental Harm

- One Lake includes dredging 10-miles of the Pearl River and building a dam to create a 1,900-acre lake. It will directly destroy over 2,500 acres of wildlife habitat, much of which provides natural flood protection for local communities. The proposal eliminates or alters critical habitat for federally-protected species (Gulf sturgeon, Ringed sawback turtle, Wood stork, Northern long-eared bat) as well as important habitat for other birds, fish, and wildlife, both within the project footprint as well as along the Pearl's 200-mile stretch that flows south of the proposed dam to Mississippi Sound and the Gulf of Mexico. This includes conservation lands such as the Bogue Chitto National Wildlife Refuge and the Pearl River Wildlife Management Area, whose ecological health depends on this freshwater.
- The Pearl River is a major source of freshwater for Mississippi Sound and the Gulf of Mexico, and the proposed dam is expected to significantly reduce this downstream flow. The DEIS's Study Area focuses mainly on the project footprint and provides dubious hydrologic modeling on downstream impacts. Much more detailed modeling is required to assess One Lake's local and downstream impacts.
- In reviewing the DEIS, the US Fish & Wildlife Service has concluded that One Lake, "*is the most environmental damaging plan*" considered in the DEIS. The Service further concludes that, "*Overall, greater details regarding plan formulation, design, operation, mitigation, and adaptive management should be presented in another draft of the EIS*

prior to finalizing.” (See letter dated August 16, 2018, to Mike Goff/Headwaters Inc., Drainage District contractor.)

- Many data gaps and unsubstantiated assumptions are made throughout the DEIS. Further research and analysis should be undertaken to understand the short and long-term impacts to water quality, wildlife and habitats, and public health, not only in the immediate project area but upstream and downstream of the project. Also as required by law, the DEIS must include a specific and detailed mitigation plan to address impacts to birds, fish, other wildlife and habitat.

The One Lake proposal should be rejected because it will cause unacceptable harm to Mississippi’s natural resources.

Unacceptable Costs to Taxpayers and Economic Harm

- The Mississippi Legislative PEER Report #540 (10/12/2010, p.35), found, “*A Comprehensive Levee Plan would be less expensive than a lake plan.*” In fact, the flood control plans developed before 1996 offer less costly options that better address flooding concerns. These options include improvements to existing levees, raising buildings and homes, or buying out properties with historical flooding problems. The DEIS fails to provide any rationale for supporting the more expensive One Lake proposal versus a Comprehensive Levee Plan, fails to meaningfully evaluate non-structural options, and completely ignores consideration of natural infrastructure to reduce flood risks.
- The DEIS acknowledges that its cost projections are based on multiple assumptions and unknowns. In addition, the true costs of mitigation and the cost of toxic site remediation are unknown as the plans for such actions have not been developed. As a result, true costs are expected exceed the estimated \$345 million for construction and the estimated \$13.9 million annual maintenance cost. Since project proponents have passed their upfront costs onto taxpayers, and there is state legislation allowing this to continue, a thorough economic analysis is necessary to fully ascertain and quantify the costs to relocating infrastructure that would be impacted (i.e. roads, bridges, railroad lines, utilities, landfills, hazardous waste sites), design/construction costs, mitigation costs, and annual costs to operate, manage and maintain the lake, levees, and dam. Additional costs that must be assessed and fully accounted for as a project cost are the costs for contaminated/toxic sediment testing and remediation, costs associated with water quality sampling, and other public/ecological health-related data gathering.
- Over 100 downstream industrial users and municipalities in Mississippi rely on stable freshwater flows from the Pearl River to adequately dilute their discharges in order to not violate their permit limits. Flow changes resulting from this project are expected to increase costs to these users such as International Paper and Georgia-Pacific as well as municipal sewage treatment plants for Jackson (i.e. Savannah Street), Bogalusa and Pearl River.

increase costs to these users such as International Paper and Georgia-Pacific as well as municipal sewage treatment plants for Jackson (i.e. Savannah Street), Bogalusa and Pearl River.

- Mississippi's annual \$891 million seafood industry supports nearly 9,500 jobs. The Mississippi Governor's Oyster Council 2015 final report recognized the threat to oyster recovery from upstream freshwater-depleting projects like One Lake. The Mississippi Commission on Marine Resources passed a 2015 resolution against damming the Pearl based on the threat One Lake poses to the state's oyster industry.
- Substantive short and long-term questions remain about who will be responsible for constructing and managing this project, as well as who will be responsible for carrying out and paying for daily management and annual maintenance of the lake, levees, and dam. While the Drainage District has asserted that they intend to hand project construction over the Corps once the EIS process has concluded and other state and federal permits are secured, no guidance has been provided to this effect. Also there are outstanding water management issues associated with constructing and operating a new dam and levee system in tandem with the existing Ross Barnett Reservoir and Spillway, to which the Pearl River Valley Water Supply District is the responsible authority. It is unclear how these two systems would be managed to control water levels and releases, who would be responsible for making such decisions, and what data these decisions would be based on.

The One Lake proposal should be rejected because it imposes unacceptable costs on taxpayers, including on my constituents, and will cause other economic harm.

Finally, please refer to my enclosed August 27, 2018, letter addressed to Colonel Michael C. Derosier, which documents 38 outstanding questions and concerns regarding this proposal that should be answered before it receives any more attention.

In closing, this project should be fully vetted by the Corps, the affected states, and the public before it receives any further consideration. Thank you for your attention to this serious matter.

Sincerely,



Bennie G. Thompson
Member of Congress

Enclosure: Bennie G. Thompson letter of August 27, 2018 to Vicksburg Corps of Engineers



United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506
August 16, 2018



Mr. Michael E. Goff
President, Headwaters Inc.
PO Box 2836
Ridgeland, MS 39158

Dear Mr. Goff:

The U.S. Fish and Wildlife Service (Service) has reviewed the June 23, 2018, Integrated Draft Feasibility and Environmental Impact Statement (EIS) and appendices. Those documents address the potential effects (beneficial and adverse) of the Pearl River Basin, Mississippi, Federal Flood Risk Management Project, Hinds and Rankin Counties, Mississippi being proposed by the Rankin Hinds Pearl River Flood and Drainage Control District (District). That project is proposed to provide flood control benefits to the Jackson, Mississippi metropolitan area in Rankin and Hinds counties. This letter was prepared under the authority the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852; 42 U.S.C. 4321 et seq.) and the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Based on our review of the Integrated Draft Feasibility and EIS, the Service has identified areas of concern and areas where additional information should be included in the EIS that would aid in the determination of potential effects; specific comments are presented in Appendix A.

The Pearl River Basin and associated oxbow lakes support a diverse fish fauna including largemouth bass, spotted bass, bluegill, redear sunfish, crappie, and catfish with 116 freshwater fish species known to occur in the Pearl River Basin (Service 1981). Striped bass, an important sport fish, have been stocked in Ross Barnett Reservoir by the Mississippi Department of Wildlife, Fisheries and Parks and provide a fishery downstream from the reservoir. Many species of minnows and darters use the varied habitats of the Pearl River and serve as ready food sources for other species. While some species are able to thrive in lake and riverine habitats, some species existence is limited to just one of those habitats.

Wildlife resources within the Pearl River Basin are dependent upon the diverse floral composition of associated forested wetlands. Bottomland hardwoods comprise the largest habitat type in the floodplain and are generally highly productive wildlife areas. Of the 490 vertebrate wildlife species occurring within the Pearl River Basin, a higher percentage use bottomland hardwoods as primary habitat (habitat a species depends upon for reproduction and/or feeding during all or a portion of the year) than any other habitat type. Cypress-tupelo

gum swamps interspersed with bottomland hardwoods add to the diversity and productivity of the floodplain system. The study area is unique in that there is significant acreage of bottomland hardwoods, varying in quality, adjacent to a major urban area.

Within the basin, including the project area, alteration of the floodplain and river has contributed to the decline in the overall function and values of the Pearl River as evidenced by the number of at-risk species (i.e., seven) within the watershed and the loss of species diversity (Bennet et al., 2008, Camack and Piller 2018, Clark et al., 2008, Piller et al., 2004, Tipton et al., 2004). Such long term and basin wide impacts can lead to declines in those at-risk species which could result in their listing under the ESA. The loss of nine miles of riverine and adjacent riparian and sandbar habitat represents lost opportunity for restoration that could aid in the recovery of at-risk species.

The tentatively selected plan (project) consists of excavation of approximately 25 million cubic yards from the floodplain, extending from River Mile (RM) 284.0 to RM 293.5, and ranging in width from 400 to 2,000 feet. Some existing levees will be set back with large amounts of fill areas placed behind them and other new or existing levees. The new land mass created behind the levees will range from 200 to over 1,000 feet in width. To maintain water supply at the J. H. Fewell Water Treatment Plant (WTP) located at RM 290.7, an approximately 1,500-foot-long weir will be constructed at the downstream limits at RM 284, creating a 1,500-acre pool area that provides flood risk management benefits, recreation, and long-term maintenance reduction. The approximately 200-foot-wide existing weir at the J.H. Fewell WTP will be removed. Islands will be created from RM 289.5 to RM 292.0, some of which will be used to maintain and create habitat areas for local species. In addition, excavation depths will be varied to create underwater habitat, spawning, and nesting areas. Final environmental features will be developed during feasibility level design. Location benefits for both Hinds and Rankin counties will be realized and will be further analyzed in the feasibility level design. Additional structural components will include a 12 feet x 12 feet gate within the new weir to maintain minimum low flows as required for the WTP downstream, as well as matching the low flow requirements of the Ross Barnett Reservoir. Design parameters will further be refined during the feasibility level design and analysis, which may result in changes. The project is designed to reduce risk of the 1% flood event (i.e., 100-year flood event).

The Service has identified four primary fish and wildlife concerns related to the proposed project: (1) loss of habitat diversity and concomitant aquatic species diversity resulting from conversion of the Pearl River into a wide excavated channel with an altered flow regime, (2) direct and indirect loss of riparian woodlands and other terrestrial habitats and/or their functions important to fish and wildlife, (3) loss of riverine sandbar habitat due to the increased water levels or to vegetation encroachment resulting from stabilized water levels in the pool, and (4) the potential extent/degree of resulting up and downstream channel re-adjustment or other hydrogeomorphic changes (e.g., bank erosion, channel incision) to the Pearl River as well as tributaries resulting from changes to water surface elevation and sediment transport due to the project. The Service is also concerned about impacts to conservation lands within and downstream of the project area, the reduction in sediments delivered to coastal marshes, loss of flows to maintain the pool elevation, especially during droughts, and potential future water withdraws if the project is constructed.

The overall planning goal for feasibility studies should incorporate the co-equal needs of flood control and fish and wildlife conservation. To ensure that fish and wildlife resources receive equal consideration with other developmental project purposes, the Service advises that the following planning objectives be adopted in the EIS to guide future planning efforts:

- Important riverine habitats and their functions and values (e.g., flows, sediment transport) and fish communities should be conserved, protected, and restored where practicable to provide habitats representative of the natural river (including flowing waters, backwaters, and oxbow lakes).
- Important terrestrial wildlife habitats (bottomland hardwoods, cypress swamps, riparian corridors, and sandbars) should be conserved, protected, and restored.
- Mitigation should be developed on a river basin basis to facilitate conservation of fish and wildlife resources.
- Detailed measures to offset fish and wildlife resource losses should be determined during feasibility studies and included in the EIS.

In addition, alteration of the Pearl River Basins' floodplain has contributed to the decline in the overall function and values of the Pearl River as evidenced by the increase of at-risk species within the watershed and the loss of species diversity. Therefore, an additional planning objective to address this basin-wide concern is presented below.

- A comprehensive assessment of changes of the Pearl River Basin's hydrology and land uses to determine their influence on flooding and the ecosystem response with a goal of identifying and developing ecosystem restoration projects that can reduce flood risk throughout the basin.

The President's Council on Environmental Quality defines the term "mitigation" in the National Environmental Policy Act regulations to include (1) avoiding the impact altogether by not taking a certain action; (2) minimizing the impact by limiting the degree or magnitude of the action; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the project; and (5) compensating for the impact by replacing or providing substitute resources or environments. The Service's 1981 Mitigation Policy (Federal Register, Volume 46, No. 15, January 23, 1981) supports and adopts this definition as the desirable sequence of steps in the mitigation planning process. The Service therefore advises that project plans be designed to avoid, minimize, or reduce negative impacts to fish and wildlife resources as much as possible, and to compensate for remaining, unavoidable resource losses. More detailed mitigation needs and measures to offset losses to fish and wildlife resources should be determined and presented in the EIS; examples are provided below.

The riverine aquatic habitats that would be impacted by the proposed project have varying fisheries resource values but some are becoming relatively scarce on a regional and national

basis (Mississippi Department of Wildlife, Fisheries and Parks [MDWFP] 2016). The Service's mitigation goal for this habitat type is no net loss of in-kind habitat value. In general, impoundments/dams adversely affect riverine fish communities by interrupting migratory movements and the downstream transport of sediments, organic matter, and nutrients; releases of water from dams may also increase downstream bank erosion and loss of sandbar and riparian habitats (Federal Interagency Stream Restoration Working Group 1998). The direct and indirect impacts of an altered river system can be minimized by design modifications to enhance turbulence and water quality, particularly temperature and dissolved oxygen, for flowing water species in the pool, tailwaters, and downstream. Examples include pumps, air diffusers, or air lifts to induce circulation and mixing of stratified waters within the pool, and in tailwaters by re-aeration structures and mixing of discharge waters. Future design work for the project should further develop the design of adequate fish passage, and measures to maintain downstream water quantity, quality, and sediment transport. Potential upstream impacts to mussels and fish should also be determined due to changes in upstream tributaries of the pool (Roghair et al., 2016). Other measures that would avoid or minimize impacts to riverine habitats include manipulating the water levels in the pool. No operational schedule is presented within the EIS, therefore any potential impacts associated with operations is not presented and cannot be assessed; this information should be included in the EIS. Potential mitigative measures include opening and rehabilitating backwater areas (including oxbow lakes), creating and managing islands and sandbars. In addition, river restoration features at the existing weirs on the Pearl River should be examined as a mitigative feature to aid in fully mitigate riverine impacts. More detailed mitigation for riverine impacts should be presented in the EIS.

Bottomland hardwoods and cypress swamps habitat have high values to wildlife and fishery resources and have significantly declined in acreage on a regional and national basis (MDWFP 2016). The Service's mitigation goal for this habitat type is no net loss of in-kind habitat value. Measures that would avoid impacts to forested wetlands should be selected over ones that would require conversion of forested wetlands to project purposes.

The riparian woodlands that would be impacted by the proposed flood control project have high wildlife resource values and are becoming relatively scarce on a regional and national basis. The Service's mitigation goal for this habitat type is no net loss of in-kind habitat value. Measures that would avoid direct construction impacts to forested wetlands should be selected over ones that would require conversion of riparian areas to project purposes. Other mitigation measures which should be considered include acquisition of non-forested riparian areas for reforestation and acquisition of forested areas for preservation and enhancement. Mitigation for riparian habitats could be combined with that of the sandbar habitat. The protective nature of forested areas (e.g., wave breaks) on the floodside of the levees should be incorporated in the overall project design. This would allow the riverine riparian habitat to be re-established as lake riparian habitat, thus restoring some lost functions and values.

The riverine sandbar habitat that would be impacted by the proposed project has high wildlife resource values and is becoming relatively scarce on a regional and national basis (MDWFP 2016). The Service's mitigation goal for this habitat type is no net loss of in-kind habitat value. Measures to avoid and minimize impacts should be developed and implemented. Mitigation measures could also include implementation of some of the recovery criteria for the ringed map

turtle (*Graptemys oculifera*) and should explore the inclusion of measures to help protect and restore habitat for the Pear River map turtle (*Graptemys pearlensis*), a species also endemic to the Pearl River Basin. Increased sedimentation resulting from the geomorphological changes could also impact the threatened inflated heel-splitter. Possible impacts to that species should be addressed in the Biological Assessment and it should also be addressed in the EIS.

The proposed project may result in hydrogeomorphic changes upstream of the proposed impoundment, specifically from RM 293 to 302. The EIS should address what effects the proposed project will have on fish and wildlife resources in this reach of the river. Specifically, how will bank erosion, channel stability, and sandbar and snag formation be affected if the proposed project has reported flood reduction benefits for this reach of the river? In addition, those hydrogeomorphic changes could also reduce the frequency and/or duration of flooding of adjacent swamps and bottomland hardwoods reducing the productivity of those habitats and potentially reducing the extent of jurisdictional wetlands afforded protected under the Clean Water Act, thus necessitating additional mitigation. The EIS should address potential impacts to these wetlands and identify mitigation measures if necessary.

Similar hydrogeomorphic changes could also occur within the project area, as well as downstream. Therefore, the EIS should address resulting changes as described above. In addition, if the water surface elevation changes in the Pearl River and tributary streams induce repairs or relocations of structures such as roads, bridges, or culverts, additional aquatic and terrestrial habitat will be negatively impacted; the EIS should address such potential indirect and cumulative impacts.

Loss of sediment to Louisiana's coastal wetlands has been identified as a contributing factor to coastal wetland loss. The combined loss of sediment from the proposed project within the proposed widened channel could adversely affect those natural wetland building processes. Adequate investigation should determine and be presented if this will occur or if hydrogeomorphic changes within the Pearl River system as a result of the project will increase sediment loads to coastal areas.

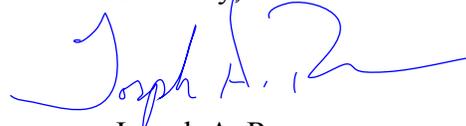
Currently, the EIS does not present information showing how maintenance of the pool elevation would reduce flows through various hydrographs; such information should be presented to better determine downstream impacts. Because of the uncertainty regarding future water needs, the District should implement an enforceable water non-withdrawal (i.e., selling of water to users other than those currently withdrawing water from the project area) condition as part of the overall project to ensure adequate downstream flows can be maintained, especially during droughts. If authorized, withdrawals could further reduce stream flows between the higher and lower river stages as well as impact water quality with the widened river.

Impacts to the public lands, e.g., LeFleur's Bluff State Park, Bogue Chitto National Wildlife Refuge, Old River Wildlife Management Area, and other conservation lands (Fannye Cook Natural Area) should be avoided and minimized; mitigation for such impacts should be located on public lands or property that is placed into the public trust. Service policy requires impacts to the refuges to be mitigated on refuges.

As currently presented in the EIS and planning documents the proposed tentatively selected plan, while containing some environmental features and proposed mitigation, is the most environmental damaging plan. Overall, greater details regarding plan formulation, design, operation, mitigation, and adaptive management should be presented in another draft of the EIS prior to finalizing. The information and data needs identified above and in Appendix A should be included in a revised draft EIS to ensure that all aspects of the human environment are adequately addressed and impacts fully disclosed in that document. Therefore, extensive additional involvement of the Service and other natural resources during ongoing detailed planning, engineering, and design of specific project measures and associated operation plans is encouraged.

If you have any questions or concerns regarding our comments, please feel free to contact David Walther of this office at 337/291-3122 or David_Walther@fws.gov.

Sincerely,



Joseph A. Ranson
Field Supervisor
Louisiana Ecological Services

cc: U.S. Fish and Wildlife Service, Ecological Services, Jackson, MS
U.S. Fish and Wildlife Service, Fish and Wildlife Conservation Office, Baton Rouge LA
U.S. Fish and Wildlife Service, National Wildlife Refuges, Bayou Lacomb, LA
U.S. Army Corps of Engineers, Vicksburg District, Vicksburg, MS

Literature Cited

- Bennet Micah, B. Kuhajda and J. Howell. 2008. Status of the imperiled frecklebelly madtom, *Noturus munitus* (Siluriformes: Ictaluridae) https://www.jstor.org/stable/20204015?seq=1&cid=pdf-reference#references_tab_contents
- Camack, David and K. Piller. 2018. Going with the Flow: Testing the role of habitat isolation among three ecological divergent darter species. <http://www.bioone.org/doi/full/10.1643/CG-17-623>
- Clark Scott, W. Slack, B. Kreiser, J. Schaefer, and M. Dugo. 2008. Stability, persistence and habitat associations of the pear darter *Percina aurora* in the Pascagoula River System, southeastern USA. *Endang Species Res.* 36:99-109.
- Farr, M.D., J.L. Alley, and M.D. Antwine. 2004. Freshwater mussel surveys of lower Sulphur River, McKinney Bayou, and Maniece Bayou for the Southwest Arkansas Navigation Feasibility Study. Unpublished report prepared by the Aquatic Ecology and Invasive Species Branch, U.S. Army Engineering and Research Development Center, Waterways Experiment Station. Vicksburg, MS.
- Federal Interagency Stream Restoration Working Group. 1998. Stream corridor restoration – principles, processes, and practices.
- Fruget, J.F. 1992. Ecology of the lower Rhone after 200 years of human influence: a review. *Regulated Rivers: Research and Management*, Vol. 7, No. 3, pp. 233 – 246.
- Mississippi Department of Wildlife, Fisheries and Parks (MDWFP), 2016, Mississippi State Wildlife Action Plan 2015 – 2025. 704 pp.
- Piller Kyle, H. Bart, Jr., and J. Tipton. 2004. Decline of frecklebelly madtom in the Pearl River based on contemporary and historical surveys. *Trans. American Fisheries Soc.* 133:1004 – 1013.
- Roghair, C., J. Moran, S. Adams, W. Haag, M. Warren, C. Krause, and C. Dolloff. 2016. Examination of fish, crayfish, mussels and habitat in transitional reaches upstream of Lewis Smith Reservoir, Alabama. pp. 50
- Tipton Jason, H. Bart, Jr., and K. Piller. 2004. Geomorphic disturbance and its impact on darter (Teleostomi: Percidae) distribution and abundance in the Pearl River drainage, Mississippi. *Hydrobiologia.* 527:49 – 61.
- U.S. Fish and Wildlife Service. 1981. A resource inventory of the Pearl River basin, Mississippi and Louisiana. USDI, Fish and Wildlife Service, Ecological Services, Decatur, Alabama. 116 pp. plus appendices.

APPENDIX A

Specific Comments on the Draft Integrated Feasibility Study and Environmental Impact Statement and Appendices

To reduce redundancy and the length of this appendix the Service has tried to identify the first occurrence of a statement that we have a comment on but do not continue to identify subsequent occurrences of similar statements however, this does not mean that our comment(s) are restricted to just the statement identified but is applicable to all similar statements within the document. In addition, our comments are primarily focused on the discussions regarding Alternative C as this is currently identified as the local preferred alternative or tentatively selected plan. If needed, general comments on a section of the document are presented first and then followed by specific comments.

Draft Integrated Feasibility Study and Environmental Impact Statement

Page xi. “The existing weirs on the lower Pearl River undoubtedly restrict the migration of sturgeon within that river.” The lack of sturgeon reports from the upstream area of the river does not necessarily indicate the degree to which sturgeon are able to access these areas. More recent reports of sturgeon include a sturgeon that was reported from the general area of Interstate 55 in 1994 and another reportedly taken in 2009 at approximately 2 miles below the Ross Barnett spillway; those reports should be mentioned in the EIS. Long-term fishery sampling/monitoring efforts within this area has typically not included gear that would be successful in determining the presence or absence of sturgeon. Recent monitoring efforts by the Service, at the Pools Bluff Sill, examined the ability of the sturgeon to successfully navigate over that sill on the lower Pearl River. A total of 7 attempts were made by adult sturgeon to cross the sill with only 2 being unsuccessful (72% success rate); unfortunately, the monitoring did not determine the extent of upstream migration once the sturgeon crossed the sill. The study did not ascertain whether the sturgeon actually crossed the sill or were able to circumnavigate the structure during high river flows, regardless passage upstream of the sill was documented at a greater rate than one might typically estimate. Similar pre-construction adaptive management monitoring efforts could provide quantifiable information regarding sturgeon usage within the project area. The Service advises the collection of such information during the early planning stages to better inform decisions during ESA consultations and more accurately address sturgeon use in the project area.

Page xii, Threatened and Endangered Species – It does not appear that the most recent survey report for the threatened ringed map turtle completed by Dr. Will Selman (i.e., Diamonds in the Rough: Status of Two Imperiled *Graptemys* Species in the Pearl River of Jackson, MS, Year 2; 2018) was used in writing this section, if not it should be updated with the results of this survey that was conducted within the proposed project area. If a copy is needed, please contact our office. Information presented in that paper indicates that survival of such species in a lake environment may be improbable.

Page 173, lines 22 and 23 – The proposed low flow gate structure is to maintain minimum flows coming from the Ross Barnett Reservoir and the Service is pleased to see the incorporation of this project feature. However, there is no information presented showing the proposed design of

such a structure, proposed operation, or calculations showing how the structure would maintain existing flows for various pool stages (including droughts); such information should be presented within the document or accompanying appendices. In addition, an analysis of stream flow lost to maintenance of a pool elevation should be undertaken and presented to determine downstream impacts.

Page 177, lines 20 and 21 – In the discussion regarding Alternative C it mentions that potential sediment issues would have to be addressed in the project area, however, specifics of such issue, including how they will be addressed, is not disclosed nor is it found discussed elsewhere in the EIS and appendices. Such information should be presented and discussed within the document, as well as alternatives or mitigation features to address this issue.

Page 185, line 1 – It appears that approximately 947 acres of mitigatable habitat behind the levees would be lost; within the documents there is no examination of alternatives that would avoid or minimize the impact of this project feature (e.g., placement in less valuable fish and/or wildlife habitat in close proximity to the project). The Service advises that such alternative features be developed, examined and presented.

Pages 189 - 191, Alternative C, Direct Impacts – While the Service concedes that the proposed alternative would result in an increase in overall aquatic habitat within the project area, that increase is a result of conversion of riverine, stream, slough, and forested wetland habitat to lake habitat. Even though water flow will be maintained through the lake, it will not provide the habitat required for those species needing a riverine environment to survive, thus representing a net loss of approximately 250 acres of this habitat type. The discussion within this section should distinguish between the gains in lake habitat and the net loss of riverine habitat and resulting loss of riverine dependent species via the conversion to a lake. See also our previous comments in the transmittal letter regarding at-risk species.

Pages 189, lines 30 -35 and 1-9, respectively – The Service understands that preliminary design of the weir presented in Engineering Appendix C (Hydrologic and Hydraulic Analysis Sheet 2.0) may change based upon additional engineering studies and is contrary to the description presented in the mitigation section (page 240, lines 3 – 22). The design in the Engineering Appendix (i.e., vertical weir) without modifications is likely to present a greater obstacle to fishery migration than the existing weir at RM 290.7 which has a stepped-ramp design that more closely resembles the design of a fish passage way and more closely resembles the description of the proposed weir in the mitigation section. That stepped design could help explain why, “. . . aquatic studies . . . do not indicate the presence of the existing weir . . . has significantly impacted the aquatic . . . populations within the project area.” (Page 187, lines 7 – 9) Until a more detailed design and operation plan are developed and fully examined the impact of that feature cannot be contrasted against the perceived impacts of the existing structure. Therefore, the discussion regarding the impact of the existing and proposed weir to fishery migration should be revised based upon more detailed design and proposed operation which should be coordinated with the Service and other natural resource agency. The studies that have not found an impact to aquatic populations due to the existing weir should be cited within the report and should be used to ensure consistency with the statement that, “. . . the weir that impedes the upstream and downstream migration for most, if not all, species within the river channel, particularly during

low flows.” (Page 190, lines 5-7). The Service encourages the District to work with the Service and other natural resource agencies to ensure that the design of the new weir would function as intended.

Page 190, lines 10 – 16 – While the Service acknowledges the on-going impact of the existing weir at River Mile (RM) 290.7, we believe that some degree of recovery of the river following the dredging which occurred over approximately 50 years ago should be acknowledged. The Service bases our assertion on information presented in the Preliminary Sediment Impact Analysis (page 13, Appendix C) that indicates no significant change in the river slope and relatively stable banks for this reach and recent Google Earth images showing the formation of relatively stable sand bars in the upstream portion.

Page 190 - 191, lines 33 – 35, and 1- 5, respectively. To fully implement an adaptive management plan, the project should include a pre-construction monitoring phase that would identify the species most likely to undergo changes (adverse) impacts due to the proposed project and develop project features that would avoid or minimize such impacts. Monitoring the success of those features post-construction would then be used to determine the need for any post-construction structural modifications, additional project features, or operational changes necessary to ensure those features success or the need for additional mitigative measures to offset remaining impacts. The Service is willing to assist in the development of an adaptive management plan.

Page 237, Mitigation Plan – Typically, the draft EIS contains a feasibility level design of the project, including mitigation features, to ensure that sufficient design and operation and maintenance plans are developed so that impacts can be fully determined, disclosed, and mitigated as appropriate. The current lack of details within the mitigation plan does not allow a determination to be made if mitigation will be sufficient; the plan also does not include mitigation measures for riparian, riverine and sandbar habitat. The Service advises that as designs and plans undergo further development the District involve the Service and other natural resources agencies to reduce future review times and potential for misconceptions regarding impacts and benefits. Additional specific comments on the Habitat Evaluation Procedure (HEP) application and mitigation planning are provided on the appendices containing those subjects.

Appendix A Plan Formulation

The U.S. Army, Corps of Engineers (USACE), Engineering Regulations (ER) 1105-2-100, notes that the Principles and Guidelines for water related studies established four accounts to facilitate the evaluation and display the effects of alternative plans. Those four accounts include the national economic development, environmental quality, regional economic development, and other social effects/aspects. Display of the national economic development and the environmental quality plans are required for a USACE authorization study. While the Service recognizes this study is being undertaken by the local sponsor, we also recognize that the project could become a Federal project constructed by USACE, therefore we advise that these accounts be displayed within this appendix to allow the Service to undertake a full comparative evaluation of the alternatives.

The plan formulation does not appear to indicate that recreational and locational development is a study goal (page 5) or objective (Table A-1) however, those development aspects are part of the economic justification (See Economics Appendix Table B-16) for Alternative C. The feasibility study and Draft EIS also do not appear to capture the need for recreational or locational development. The inclusion of these features into plan formulation should be formally addressed in the Feasibility Study and EIS. For consistency, development and inclusion of recreation features for other alternatives should also be undertaken and presented in the Feasibility Study and EIS.

The levee only alternative includes a cost of 312 million for pumping plants at seven tributaries, however, previous Corp studies found that pumping facilities (i.e., plants) were not economically justified, with costs exceeding benefits by at least an 8 to 1 margin for each of the pump areas (1994 USACE draft Feasibility Study). The current EIS, Appendix A (page 34, line 16) states that an updated interior analysis was conducted which “appeared” to justify the need for pumping stations. The EIS should include a cost-benefit analysis specific for pumping plants as the added cost of pumping stations significantly increases the overall cost of the levee only alternative. Impacts to fish and wildlife resources resulting from those plants should also be included in EIS.

The levee only alternative provides flood protection with fewer impacts to fish and wildlife resources, especially at-risk and listed species. However, the Service believes the levee only alternative should include further modifications that would aid in achieving flood control while avoiding and minimizing impacts, including major modification to the Pearl River and its floodplain. Some of these modifications are part of the Alternative C, the locally preferred alternative. Accordingly, the Service recommends that the levee alternative include the following features:

- 1) Levee setbacks from approximately RM 288 to approximately RM 291, as proposed for the river widening alternative (Alternative C), to widen the floodplain and reduce flood stage elevations in this area.
- 2) Extension of the Jackson Fairgrounds Levee upstream beyond Fortification Street (i.e., Old River Place) to Riverside Drive (J.H. Fewell WTP) to prevent the flooding from the Interstate 55 and Fortification Street interchange as happened during the Flood of 1979.
- 2) Lowering of the abandoned Mobile and Ohio railroad embankment near RM 291 to reduce its impact on upstream flood stages.
- 3) Excavation of the mowed floodplain between RM 284 and RM 290 to a lower elevation would reduce water surface elevations while still allowing maintenance mowing. This should lower flood stages through this area reducing the chance of levee overtopping and reducing the height of proposed levees. Soils removed, if suited, should be used in levee construction. Floodplain excavation could also include removal of the floodplain portion of the Gallatin Street landfill near RM 285, a site identified in the EIS that be leaching chemicals into the groundwater and potentially into the Pearl River. If needed, additional borrow material could be taken from

within the excavated floodplain but in manner that the borrow pits would provide potential recreational fishing locations.

Appendix B Economic

Page 1, second paragraph – The economic analysis used a 50-year project life while the HEP analysis used a 100-year project life (see page 18); these analyses should utilize the same project life. Also, the economic base year is 2020; this should coincide with end of the construction period in the HEP analysis.

Page 15, lines 12-14 state that a “small levee segment would be constructed on the west bank from approximately RM 297 to RM 298 to mitigate flood risk in this area”, however, there is no discussion of this in the remainder of the EIS, nor is it depicted in the maps for Alternative C. The Service advises that this design feature be further discussed in the EIS and included in maps.

Amendment 3, page 37 Economic Benefits - In consultation with the natural resource agencies a plan should be developed to identify and designate shoreline usage areas within the project area as well as down and upstream areas influenced by the project. Designations should include; 1) limited development, 2) public recreation, 3) protected shoreline, and 4) prohibited access. This would aid in complying with ER 1110-2-8154 and would aid in better determining project impacts as well as recreational benefits.

Appendix C Engineering

Preliminary Sediment Impact Assessment - A monitoring and adaptive management plan addressing up and downstream geomorphology changes should be developed to determine the need to implement grade or other erosion control (e.g., bank stabilization, etc.) features to minimize projects impacts to the Pearl River and its tributaries. That monitoring may result in the determination of additional mitigation needs from such impacts. That plan should include at minimum the use of aerial photographs, geographical information systems, gauge and cross-section data as well as other parameters deemed necessary during development of that plan. That plan should be developed in cooperation with the natural resource agencies with the proposed plan and costs included as a project feature in the EIS.

Environmental Evaluation of Hazardous, Toxic, and Radiological Wastes - Sediment testing for contaminants is recommended in overbank areas, especially those around known contaminated areas and those proposed for use in levees or berms where contact with the public or fish and wildlife is probable. The testing and response plan for any contaminated soil should be developed in cooperation with the natural resource agencies. The results of such testing should be presented within this appendix. Identification of unusable material and proper disposal should be included in project plans and costs.

Appendix D Environmental

The absence of a Clean Water Act of 1972 (as amended) 404(b)1 evaluation was noted; the Service advises that evaluation be included in an appendix.

Water Quality sub-section - Long-term water quality and quantity monitoring up and down stream and within the expanded channel should be undertaken pre and post construction. Parameters to be measured should include at minimum temperature, dissolved oxygen, total suspended sediments, nitrogen, pH, fecal coliforms, velocity, discharge, and water levels as well as other physical and chemical parameters necessary to maintain the life cycle of selected aquatic species. This water quality monitoring plan should be developed in cooperation with the natural resource agencies. This would aid in complying with ER 1110-2-8154.

Habitat Evaluation Procedures

In order to ascertain the validity of the HEP analysis the Service requests an inter-agency review of the assumptions by target years and suitability indices be undertaken; such reviews can ensure the proper application of models and the calculation of impacts and mitigation.

Page 2, first paragraph, last sentence – Impacts associated with internal collector ditches, gated drainage structures, and pumping plants were not included in the impact analysis. While these features individually may not result in a significant impact the combined impact of those structures may result in the loss of additional habitat. The impacts of those features should be determined and included in the impact and mitigation analysis.

Page 7 and 8, tables displaying cover types and acreages - As displayed in the tables, the upland evergreen forest impacts are less for the Channel Improvement Alternative than the levee only alternative. Maps displaying habitat type impacts of the levee only alternative should be presented along with an explanation regarding how the levee alternative results in greater impacts for this habitat type.

Page 18, last two paragraphs – Following TY 1 there is a 3-year pre-start period of construction followed by the life of the project, thus the period of analysis the HEP would be 103 years. However, please refer to our previous comment regarding the economic base year; the base year should be the start of the HEPs period-of-analysis.

Page 19, second paragraph, last sentence – The Service agrees that HEP guidance requires all habitat types of an evaluation species be combined to obtain a weighted average based on acreage, however, Service mitigation policy also requires impacts to resource Category 2 (e.g., riverine, swamp) be mitigated in-kind to ensure replacement of habitat values, unless in-kind replacement is not physically or biologically attainable. Loss of habitats without in-kind replacement can result in the reduction of species populations that could lead to such species becoming at-risk. Therefore, bottomland hardwood, cypress swamp, riparian, and sandbar losses should be presented individually to ensure adequate in-kind mitigation can be implemented.

Page 21, first paragraph – It is unclear as to exactly how the forested islands were addressed in the HEP analysis, the Service would like to discuss the particulars of this project feature and how it is addressed in the HEP. That information should be presented in the appendix.

Page 23, second paragraph – As previously stated in our letter the Service considers riverine habitat to be in resource Category 2, thus requiring in-kind mitigation. The Service and other natural resource agency should be enlisted to work with the District to identify potential mitigation options.

Page 28, first paragraph – It is unclear as to which of the three different compensation scenarios (in-kind, equal replacement or relative value) was utilized for sizing of the mitigation area; this should be stated and an analysis should be presented in the EIS for review.

Page 31, first paragraph – While the Service is not opposed to the use of perpetual conservation easements on private lands as a possible mitigation option we advise that for impacts to lands in public ownership the mitigation should be in similar type ownership.

Pages 34 – 35, Aquatic Compensation Analysis – It should be noted that the mitigation analysis used by the Engineering Research and Development Center (ERDC) assessed impacts to lacustrine, back water, and riverine species and habitats separately and formulated separate riverine mitigation concepts. The Services endorses and supports this approach to ensure riverine impacts are fully mitigated and recommends it be used in the EIS to determine appropriate mitigation.