

American Rivers ♦ Audubon Mississippi ♦ Healthy Gulf National Audubon Society ♦ Sierra Club ♦ Sierra Club Mississippi

January 11, 2021

Via email: YazooBackwater@usace.army.mil

Colonel Robert A. Hillard
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Vicksburg District
4155 Clay Street
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Re: Comments on the Final Supplement No. 2 To The 1982 Yazoo Area Pump Project Final Environmental Impact Statement

American Rivers, Audubon Mississippi, Healthy Gulf, National Audubon Society, Sierra Club, and Sierra Club Mississippi (collectively, the Conservation Organizations) submit these comments on the Final Supplement No. 2 To The 1982 Yazoo Area Pump Project Final Environmental Impact Statement (FSEIS).

Comments

The Conservation Organizations call on the Corps to abandon the Proposed Plan—which is prohibited by the 2008 Clean Water Act § 404(c) Final Determination and the Clean Water Act 404(b)(1) Guidelines. The Corps should also withdraw the deeply flawed FSEIS, which like the Draft SEIS, does not comply with the important, longstanding requirements of the National Environmental Policy Act (NEPA). The Corps should permanently abandon all efforts to build the environmentally devastating, extremely costly, highly controversial, and long-vetoed Yazoo Pumps project and instead focus on opportunities for providing more effective, meaningful, sustainable, and immediate benefits to the communities in the Yazoo Backwater Area while restoring this ecologically critical region.

The Conservation Organizations remind the Corps of the commitment provided in both the FSEIS and the Draft SEIS that the Corps will not sign the Record of Decision for the already-vetoed Yazoo Pumps until Endangered Species Act (ESA) coordination on the pondberry has been completed:

ESA coordination on the pondberry is ongoing and the Record of Decision would not be signed until coordination is complete (see Threatened and Endangered Species Appendix for additional information on Pondberry assessment).¹

On November 5, 2020, the U.S. Fish and Wildlife Service (the Service) advised the Corps that “sufficient data is not available at this time to make an ‘effects’ determination” for the federally endangered

¹ FSEIS at 52; Draft SEIS at 51.

pondberry.² As a result, the Conservation Organizations believe that the Service will not concur with the Corps' Biological Assessment for the pondberry. This will mandate formal consultation and development of a full Biological Opinion. As a result, the Corps almost certainly will not be able to sign a Record of Decision for the Proposed Plan in the near future without violating its explicit commitment in the FSEIS.

A. The FSEIS Does Not Correct the Many Failings that Led the Environmental Protection Agency and the U.S. Fish and Wildlife Service to Conclude that the Project Should Not Move Forward

Both the U.S. Environmental Protection Agency (EPA) and the U.S. Fish and Wildlife Service submitted scathing comments on the Draft SEIS—comments that make clear that the project may not move forward. While the Corps provided nominal responses to these comments, the FSEIS does not address even one of the many critical problems identified by those agencies.

EPA's comments on the Draft SEIS make clear that the Proposed Plan is prohibited by the Clean Water Act 404(b)(1) Guidelines.³ EPA's comments also determine that the proposed mitigation plan violates the Clean Water Act § 404 mitigation regulations. As a result, the Proposed Plan also violates 33 USC § 2283(d), which requires that civil works projects comply with "the mitigation standards and policies established pursuant to the regulatory programs" administered by the Corps. As EPA's comments highlight:

- **The analysis of wetland impacts is fatally flawed.** Among other problems, the analysis cannot be reconciled with the findings of the interagency field-based Environmental Monitoring and Assessment Program (EMAP) which "determined that there are approximately 216,000 acres of wetlands" in the Yazoo Backwater Area, an estimate that "has not changed in the 2020 DSEIS." The Corps has not completed the required jurisdictional determination required by current regulations. The wetlands impact analysis should—but does not—evaluate the full suite of wetland impacts, including because the FSEIS: (1) does not evaluate the "potential effects on wetlands based on expected changes in flood duration and frequency;" (2) does not evaluate "how the pumps project would impact wetlands that currently experience ≥ 7 days of flood inundation;" (3) does not evaluate "all flooded wetlands that are in the 5-year floodplain;" and (4) does not evaluate "how many wetlands would no longer be within the 2-year and 5-year floodplains with the pumps project implemented."
- **The analysis of impacts to fish and other aquatic species is fatally flawed.** Notably, EPA concludes that it "is unclear whether the pumps project's potential impacts to fish and other aquatics have been fully assessed" which is particularly important because "prior data also indicate that between 2007 and 2020 there has been a 30% decrease in the size of the spawning

² FSEIS, Appendix H (Threatened and Endangered Species) at 97. The Service also raised significant concerns about the impacts of the same plan on the federally endangered pondberry in 2007, when the Service determined that take would occur. 2007 FSEIS, Main Report at 33-34.

³ FSEIS, Appendix E (Public Comments) at 34-44. The Conservation Organizations strongly disagree with the statement contained in the EPA cover letter transmitting these comments that the Proposed Plan is not subject to the 2008 Clean Water Act Veto of the Yazoo Pumps. As discussed in these comments and in our comments on the Draft SEIS, the Proposed Plan is unquestionably prohibited by the 2008 Veto. EPA's scathing comments on the Draft SEIS also document the fact that the Corps has relied on the same flawed wetland assessment methodologies decisively rejected by EPA in the 2008 veto because those methodologies severely underestimate and obscure the pumps' significant, unacceptable impacts.

habitat impact assessment area and a 133% decrease in the size of the rearing habitat impact assessment area.”

- **The analysis of water quality impacts is fatally flawed.** EPA concludes that the “statements regarding water quality benefits from the operation of the pumps, are not supported by data to quantify beneficial or adverse effects.”
- **The analysis of secondary and cumulative impacts is fatally flawed.** EPA recommends a fundamentally new analysis of these impacts. EPA notes that the new analysis should include an evaluation of the “effects of discharging water from the YBA into the Yazoo River on homes, communities, and/or infrastructure along the Yazoo River, particularly in areas downstream of the Deer Creek site’s pump discharge point (e.g., Vicksburg).”
- **The compensatory mitigation plan is fatally flawed.** EPA has determined that the “compensatory mitigation plan described in the 2020 DSEIS includes a number of deficiencies that would preclude a private party from receiving a Section 404 permit” including, but not limited to failing to identify specific mitigation sites. As a result, the Proposed Plan also violates 33 USC § 2283(d), which requires that civil works projects comply with “the mitigation standards and policies established pursuant to the regulatory programs” administered by the Corps.
- **The proposed adaptive management plan is fatally flawed.** Among other problems this plan does not require collection of scientific data on key resources, “including aquatic biology, water quality, and wetlands” and does not require “use of that information to inform ongoing management of the project.” The plan also does not evaluate the “effects and management of the pumps” or the proposed groundwater wells. The plan also fails to identify the steps that will be followed if mitigation is not offsetting the actual impacts of the Yazoo Pumps.
- **The Environmental Justice analysis is fatally flawed.** EPA has determined that this important analysis fails on many levels. As the starting point to correct these failings, “EPA recommends the EJ analysis clarify information regarding the scope of the study area, project benefits, and impacts in the FSEIS.”

The comments from the U.S. Fish and Wildlife Service (the Service) are equally scathing. The Service highlights its significant concerns with the Proposed Plan and identifies 20 substantial recommendations that would need to be followed to address the Service’s concerns, including such major actions as: (1) restoring the one-year floodplain; (2) reforesting the 2-year floodplain; and (3) fully compensating for all wetland impacts “including impacts to shorter hydroperiod wetlands and wetlands outside the two-year floodplain”—impacts that the Corps has not even evaluated, let alone proposed to mitigate.⁴

The Service concludes that the Proposed Plan should not move forward:

In conclusion, the Service does not believe the currently formulated plan represents a balanced approach to addressing the flood damage reduction and environmental opportunities in the

⁴ SEIS, Appendix M-2 (U.S. Fish and Wildlife Coordination Act Report) at 8-16.

Yazoo Study Area. The fish and wildlife resource planning goals must be addressed to at least a satisfactory level.”⁵

The Service also advised the Corps that the “abbreviated timeframe” imposed by the Corps precluded “the Service and the Corps from undertaking necessary coordination during the planning process to ensure adequate time for Service review of Corps-relied upon models and assumptions, as well as compliance with the [Fish and Wildlife Coordination Act]. The abbreviated timeframe has restricted the Service’s ability to undertake a more thorough analysis and fully develop recommendations to reduce damages to fish and wildlife resources.”⁶

B. The FSEIS Does Not Address the Detailed Technical Comments Submitted by the Public In Opposition to the Proposed Plan

The FSEIS fails to substantively address the many detailed technical comments submitted by the public on the Draft SEIS. Instead, the Corps opted to finalize the FSEIS just 4 days after the public comment period closed on the Draft SEIS, precluding the Corps from providing any degree of meaningful review to those technical comments.⁷ The Corps’ failure to respond to significant comments violates NEPA and the Administrative Procedure Act.⁸

As the Corps is aware, the Conservation Organizations submitted 113 pages of detailed technical comments on the Draft SEIS along with a detailed expert analysis denouncing the model used by the Corps to assess downstream flood impacts, a detailed proposal for a Resilience Alternative, and 13 additional attachments consisting of hundreds of pages of information.⁹ The Corps’ response to these highly detailed, technical comments consists of a scant five general paragraphs, each of which provides a blanket rejection of concerns raised in our comments. The Corps did not make any changes to the Draft SEIS in response to these comments. Each issue highlighted in our comments on the Draft SEIS remains valid and applicable to the FSEIS and should be considered a part of our comments on the FSEIS. Accordingly, the Conservation Organizations incorporate our comments on the Draft SEIS into these comments on the FSEIS, as though fully set forth herein.

⁵ SEIS, Appendix M-2 (U.S. Fish and Wildlife Coordination Act Report) at 16.

⁶ SEIS, Appendix M-2 (U.S. Fish and Wildlife Coordination Act Report) at 1.

⁷ While the FSEIS was noticed in the December 11, 2020 Federal Register (85 Fed. Reg. 80093), the FSEIS electronic files, including all appendices, are dated (04Dec20) in the official EPA Environmental Impact Statement (EIS) Database. See <https://cdxnodengn.epa.gov/cdx-enepa-ll/public/action/eis/details?eisId=316671> (last visited January 8, 2021). The public comment period on the Draft SEIS closed on November 30, 2020. 85 Fed. Reg. 65800 (October 16, 2020).

⁸ See, e.g., *Ala. Power Co. v. Costle*, 636 F.2d 323 (D.C. Cir. 1979)(finding that the “duty to respond to significant comments finds a statutory basis in required notice and comment procedures for the opportunity to comment for the opportunity to comment is meaningless unless the agency responds to significant points raised by the public.”); *FBME Bank Ltd. v. Lew*, 2016 WL 5108018, *1, *23 (D.D.C. 2016) (finding that the agency’s failure to respond to significant comments that would have required a change in the proposed rule was arbitrary and capricious); *Lilliputian Systems Inc. v. Pipeline and Hazardous Materials Safety Admin.*, 741 F.3d 1309, 1313 (D.C. Cir. 2004) (“An agency’s failure to respond to relevant and significant public comments generally demonstrates that the agency’s decision was not based on a consideration of the relevant factors.” (internal quotations and citations omitted)).

⁹ Comments of American Rivers, Audubon Mississippi, Healthy Gulf, National Audubon Society, Sierra Club, and Sierra Club Mississippi on the October 2020 Draft Supplement No. 2 To The 1982 Yazoo Area Pump Project Final Environmental Impact Statement, dated November 30, 2020.

As the Corps is also aware, the Conservation Organizations submitted 80 pages of detailed technical comments during the scoping period for the FSEIS.¹⁰ The Conservation Organizations also submitted a detailed proposal for a Resilience Alternative with those scoping comments, along with 8 additional attachments consisting of many hundreds of pages of information. Neither the FSEIS nor the Draft SEIS addressed any of the concerns or proposals made in these scoping comments. Each issue highlighted in these scoping comments remains valid and applicable to the FSEIS and should be considered a part of our comments on the FSEIS. Accordingly, the Conservation Organizations incorporate our scoping comments into these comments on the FSEIS, as though fully set forth herein.

The Corps provides no response at all to any of the other more than 50,500 comment letters submitted by citizens, scientists, and public interest groups from Mississippi and across the country. For example, the Corps refused to provide any response to any of the following detailed technical comments:

- Detailed comments submitted by more than 110 scientific professionals;
- Detailed comments submitted by the Society of Wetland Scientists;
- Detailed comments submitted by the Society of Freshwater Science;
- Detailed comments submitted by the North American Lake Management Society;
- Detailed comments submitted by the American Fisheries Society;
- Detailed comments submitted by a number of biologists who specialize in turtles;
- Detailed comments submitted by a former Environmental Protection Agency attorney; and
- Detailed comments submitted by more than 120 national, state and local conservation, faith-based, social justice, and recreation organizations.

C. The FSEIS Recommends the Exact Same Unacceptable Project and Relies on the Exact Same Flawed Analyses Utilized in the Draft SEIS

The FSEIS recommends the exact same project as the Draft SEIS, and relies on the exact same flawed analysis utilized in the Draft SEIS. These flaws, which are extensively detailed in the Conservation Organizations' Comments on the Draft SEIS and in the Conservation Organizations' Scoping Comments, are briefly summarized below.

1. **The FSEIS Recommends a Project That is Prohibited by the 2008 Clean Water Act Veto.** The FSEIS recommends construction of the same 14,000 cubic-feet-per-second (cfs) pumping plant whose purpose, structure, operation, and impacts fall squarely within the scope of the 2008 veto—which explicitly prohibits plans that would harm more than 28,400 acres of wetlands.¹¹

¹⁰ Comments of American Rivers, Audubon Mississippi, Healthy Gulf, National Audubon Society, Sierra Club, and Sierra Club Mississippi in response to the April 16, 2020 Notice of Intent to Prepare Supplemental Environmental Impact Statement for the Yazoo Area Pump Project (85 Fed. Reg. 21218), dated June 15, 2020.

¹¹ 2008 Clean Water Act 404(c) Final Determination at iii, 73.

The FSEIS, which severely underestimates wetland impacts, acknowledges that the pumps will degrade more than 38,744 acres of wetlands.¹²

The FSEIS acknowledges that the recommended plan is the same project vetoed by EPA in 2008. For example, the FSEIS states:

- “Because the Proposed Plan is an updated and reevaluation of the 2007 recommended plan there was no reformulation of the array of alternatives examined in the 2007 Main Report. The original formulation of plans has been reviewed and accepted as remaining valid. Because the project is authorized, and a recommended plan for the remaining features has been vetted and reviewed, this FSEIS No. 2 serves the specific purpose of updating and completing the NEPA requirement for disclosure of impacts, and to support finalizing a ROD.”¹³
- “The goal of this study is to update and reevaluate the recommended plan from the 2007 Main Report based on new environmental and hydraulic data. No new study goals or objectives have been added.”¹⁴
- **“Why is the Corps proposing the same pumping project that was vetoed by the EPA?** The Corps received funding to update the recommended plan from the 2007 Main Report based on updated environmental and hydrologic data. A number of changes have been made to the proposed project.”¹⁵
- **“You said that you reviewed non-structural alternatives in the 2007 report, but you did not review all the non-structural alternatives, as pointed out in the 2008 veto. Why didn't you consider these new alternatives in the DSEIS?** Congress directed funding only to update the recommended plan from the 2007 Main Report based on updated environmental and hydrologic data.”¹⁶
- FSEIS Table 2-28 refers to the Proposed Plan as “Plan 5” which was the plan recommended in the 2007 FSEIS.¹⁷

2. [The FSEIS Recommends a Project That is Prohibited by the Clean Water Act 404\(b\)\(1\) Guidelines.](#) The Yazoo Pumps are clearly prohibited by the 404(b)(1) Guidelines because they: (1) are not the least environmentally damaging practicable alternative; (2) will clearly cause significant—and conclusively unacceptable, as documented in the EPA veto—degradation of the aquatic ecosystem; (3) rely on a wholly conceptual mitigation proposal that is woefully inadequate and infected by the very same fatal flaws identified by EPA in the veto; (4) will cause or contribute to violations of state water quality standards; and (5) will jeopardize the continued existence of the

¹² FSEIS, Appendix F-5 (Wetlands) at 33.

¹³ FSEIS at 86.

¹⁴ FSEIS at 17.

¹⁵ FSEIS, Appendix E (Public Comments) at 9 (bolded language in original).

¹⁶ FSEIS, Appendix E (Public Comments) at 24 (bolded language in original).

¹⁷ FSEIS, Appendix G (Engineering Report) at 144 (“Table 2-28. Base condition cumulative land-use by frequency and Plan 5 Pump Frequency land-use.”); *see also* Draft SEIS, Appendix G (Engineering) at 123 (“The proposed plan is Plan 5 from the 2007 FEIS.”).

federally endangered pondberry. EPA's comments on the Draft SEIS highlight many of these failings and make it clear that the Yazoo Pumps are prohibited by the 404(b)(1) Guidelines.

3. **The FSEIS Recommends a Project That Will Not Provide the Promised Flood Relief.** The vetoed Yazoo Pumps will not provide the promised flood relief for the Yazoo Backwater Area. In fact, the pumps are so ineffective that they will leave 82% to 89% of flooded lands underwater, and will take weeks to months to drawdown floodwaters on the remaining lands, as acknowledged in the FSEIS.¹⁸
4. **The FSEIS Recommends a Project That Threatens Public Safety.** The vetoed Yazoo Pumps could create significant flood risks for communities in north Vicksburg and the Yazoo Backwater Area—concerns raised repeatedly by the conservation community and EPA. Operation of the Yazoo Pumps would put downstream communities on the receiving end of an additional 9 billion gallons of water a day when the Yazoo River is already at flood stage. Communities in the Yazoo Backwater Area could flood if that massive influx of water overtopped or damaged the Yazoo Backwater Levee, which is at risk of crevassing and is so low that it is not accredited to handle a 100-year flood.¹⁹ Collapse of this levee would flood the very communities the pumps are purported to protect. The FSEIS dismisses these concerns out of hand in a brief analysis²⁰ based on a model that an independent expert found to be so flawed that it “cannot be trusted to get a correct answer” regarding the impact of the Yazoo Pumps on flood levels in the Yazoo River.²¹ The FSEIS makes no effort to address this expert analysis.
5. **The FSEIS Does Not Look at Even a Single Alternative to the Vetoed Yazoo Pumps.** The FSEIS does not consider even a single alternative to the vetoed Yazoo Pumps, in direct violation of the National Environmental Policy Act, the Clean Water Act, and modern floodplain management techniques. The FSEIS makes no mention of repeated requests to consider alternatives, including from EPA, and the Conservation Organizations whose scoping and Draft SEIS comments proposed [a suite of proven, low-cost, natural infrastructure and non-structural measures](#) (referred to as the Resilience Alternative) that would provide effective, sustainable, and environmentally sound relief to communities in the Yazoo Backwater Area.
6. **The FSEIS Ignores a Wide Array of Devastating Impacts to Hemispherically Significant Wetlands.** The FSEIS dramatically understates wetland impacts by looking only at [some types of impacts to a small subset of wetlands](#), and by relying on scientifically unsound methodologies that were decisively rejected by EPA in the 2008 veto. The FSEIS arbitrarily and severely restricts its review of wetland impacts to changes in the duration of inundation to the small subset of wetlands located within the 2-year floodplain that receive ≥ 14 consecutive days of flooding. These severe, scientifically unsound restrictions cause the FSEIS to significantly understate impacts to wetlands and aquatic habitat, as made clear in the 2008 veto. Even this severe underestimate acknowledges degradation to at least 38,774 acres of wetlands in the 2-year floodplain; a level of impacts prohibited by the 2008 veto.

¹⁸ FSEIS, Appendix C (Tables) at Table 5.3; SEIS, Appendix G (Engineering Report) at 135, Table 2-26.

¹⁹ National Levee Database at <https://levees.sec.usace.army.mil/#/levees/system/5905000041/fema> (accessed November 6, 2020). Lack of accreditation means that the Yazoo Backwater Levee cannot protect Yazoo Backwater communities during flood events at or greater than the 1% chance of exceedance (100-year flood event).

²⁰ FSEIS, Appendix G (Engineering Report) at 165, paragraph 205.

²¹ FSEIS, Appendix E (Public Comment) at 225-273.

7. **The FSEIS Ignores Critical Impacts to the Many Rivers and Streams in the Project Area.** The FSEIS does not assess impacts to the project area's many hydrologically-connected streams, even though the pumps-induced wetland losses will likely reduce flows and increase sedimentation and nutrient pollution in those streams. These wetland losses also could reduce groundwater recharge in the project area, exacerbating low stream flows and the already-significant declines in the Mississippi Alluvial Plain aquifer.
8. **The FSEIS Ignores Critical Impacts to a Vast Array of Fish and Wildlife.** The FSEIS fails to assess critical impacts to a vast array of fish and wildlife, including by failing to fully evaluate the pumps' adverse impacts to internationally significant aquatic resources. For example, the FSEIS does not evaluate how many acres would no longer flood to a depth of 1 foot for 8 consecutive days with the pumps in place, even though the FSEIS makes clear that all fish spawning habitat would be lost in such areas. The entire analysis of waterfowl impacts is based on a single duck species even though more than 40 percent of the nation's waterfowl migrate through the project area twice each year, including more than 30 species of waterfowl that rely on bottomland hardwood wetlands. The shorebird analysis is limited to a few vague paragraphs even though up to one million shorebirds migrate through the project area twice each year, as highlighted in the 2008 veto. The U.S. Fish and Wildlife Service opposes the FSEIS plan, and the Corps has refused to adopt recommendations that could alleviate some of the Services' concerns.²² The FSEIS also does not include a completed Endangered Species Act consultation on the federally endangered Pondberry.
9. **The FSEIS Mitigation Is Wholly Inadequate and Ignores Longstanding Legal Requirements.** Because the FSEIS does not assess the full extent of the pumps' adverse impacts to hemispherically significant aquatic resources and wildlife, it cannot assess the amount of mitigation needed to offset those impacts. The FSEIS also repeats the same mitigation errors identified in the 2008 veto by failing to identify specific mitigation sites, provide a detailed mitigation plan, and ensure adequate mitigation even for the severe underestimate of 38,744 acres of wetland impacts. Relying on the same functional assessment rejected in the 2008 veto precisely because it significantly understates lost wetland functions and significantly overstates mitigation outcomes,²³ the FSEIS proposes just 2,405 acres of reforestation of yet-to-be-identified frequently flooded lands as in-kind mitigation.²⁴ This is 8,257 fewer acres of mitigation than proposed by the Corps in 2007; the FSEIS also eliminates 52,900 acres of additional restoration that was a much-touted component of the Corps' 2007 proposal. As discussed above, EPA has advised the Corps that the mitigation plan violates the Clean Water Act § 404 mitigation regulation. As result, the Proposed Plan also violates 33 USC § 2283(d), which requires civil works projects to comply with "the mitigation standards and policies established pursuant to the regulatory programs" administered by the Corps.

²² FSEIS, Appendix M-2 (U.S. Fish and Wildlife Coordination Act Report).

²³ FSEIS, Appendix F-5 (Wetlands) at 26; 2008 Clean Water Act 404(c) Final Determination at 28 and 47.

²⁴ The FSEIS also proposes out-of-kind mitigation consisting of the installation of groundwater wells far outside of the project area that would result in even more groundwater pumping from the already severely-depleted Mississippi Alluvial Plain aquifer.

10. **The FSEIS Does Not Provide an Estimate of the Project's Costs and Benefits.** The FSEIS does not provide any information on the costs or benefits of the Yazoo Pumps, and as a result cannot demonstrate that the project's benefits will exceed the project's costs, as required by law. Construction costs have increased substantially since the last estimate provided by the Corps in 2007, and the FSEIS proposes massive new construction at the Deer Creek location that has never been accounted for in a cost estimate; these changes have likely pushed the cost of construction to well over \$450 million. The FSEIS does make clear that the pumps will provide little if any flood damage reduction benefits, acknowledging that 82% to 89% of the project area will still flood even with the pumps in place, and the pumps will take weeks to months to drawdown floodwaters on the remaining lands.²⁵ The FSEIS also highlights the extremely limited potential for agricultural benefits, noting that "agricultural crop acres benefited are expected to be 28,700 acres per year over the life of the project."²⁶ In 2007, the Corps acknowledged that 80% of project benefits would come from agricultural intensification, which further reinforces that the pumps are not designed to provide flood relief for homes and other structures.
11. **The FSEIS Has Not Undergone the Mandatory Independent External Peer Review.** The FSEIS does not include a report—or account for the findings of—an Independent External Peer Review (IEPR) panel. The FSEIS also makes no references to such a review being conducted, even though IEPR improves project planning and is required for this project as a matter of law.²⁷
12. **The FSEIS Does Not Respond to Public Comments.** As detailed above, the FSEIS responds to just one set of comments submitted by the public. In a scant five paragraphs that response dismisses more than 100 pages of detailed technical comments and an expert analysis denouncing the model used by the Corps to assess downstream flood impacts. The FSEIS provides no response to any of the other 50,500 comment submitted by citizens, scientists, and public interest groups from Mississippi and across the country, including detailed technical comments submitted by more than 110 scientific professionals, the Society of Wetland Scientists, the Society of Freshwater Science, the North American Lake Management Society, the American Fisheries Society, more than 120 conservation and social justice organizations, and others.²⁸

D. Additional Problems with the FSEIS

In addition to the extensive problems detailed in the comments submitted by EPA, the Service, and the public, the FSEIS suffers from at least the following additional flaws.

1. 2019 Flood After Action Report

Because the Corps reinitiated its study of the vetoed Yazoo Pumps project in response to the 2019 flood event, it is particularly critical for the Corps and the public to fully understand how that event played out in the Yazoo Backwater Area, and how any actions undertaken by the Corps and others may have exacerbated or otherwise influenced the level and extent of flooding in the Yazoo Backwater Area.

²⁵ FSEIS, Appendix C (Tables) at Table 5.3; SEIS, Appendix G (Engineering) at 135, Table 2-26.

²⁶ FSEIS, Appendix F-1 (Environmental Justice) at 9.

²⁷ 33 USC 2343(a) (making independent external peer review mandatory for civil works projects that cost more than \$200 million or are controversial).

²⁸ The FSEIS does provide minimal responses to the comments submitted by EPA and the U.S. Fish and Wildlife Service.

The Conservation Organizations urged the Corps to develop an After Action Report for the 2019 flood in their scoping comments, but no such report was referenced in the Draft SEIS. The Corps was also asked whether it had prepared an After Action Report for the 2019 flood during the virtual public hearing. The Corps responded in the FSEIS that an after action report had been prepared, and that a copy of the report was available upon request from the Vicksburg District:

Did the Corps prepare an after action flood report for the 2019 flood to help inform the development of solutions? If not, why not? Where is that available?

An AAR was completed for the 2019 flood and is available upon request from the Vicksburg District. The Vicksburg District utilized flood data from the 2019 flood in the updated period of record for the Proposed Plan.²⁹

However, the Corps still has not provided a copy of this report to the Conservation Organizations even though we requested a copy on December 11, 2020.³⁰ Because the Corps has failed to supply this critical After Action Report, the public has no way of knowing whether or not the Corps properly accounted for the 2019 flood in the FSEIS. The 2019 Flood After Action Report, and any supporting materials and documentation, should be immediately provided to the Conservation Organizations, and must be made a part of the record for the FSEIS.

The FSEIS also acknowledges that it “does not discuss the exact number of homes and farmland acres impacted from the 2019 flood.”³¹ In the absence of this information—including the precise elevations of the structures and farmland acres impacted—it is not possible for the Corps or the public to determine whether, or by how much, operation of the Yazoo Pumps would have reduced flood damages during the 2019 flood.

As highlighted at page 19 of the Conservation Organization Comments on the Draft SEIS, documentation provided by the Corps in response to a Freedom of Information Act request demonstrates that had the Yazoo Pumps been in operation during the 2019 flood, 442,195 acres—**83% of the lands that flooded in 2019**—would still have been underwater, based on data provided by the Corps.³² Just 17% of the acreage that flooded in 2019 would have been drained by the Yazoo Pumps.

Moreover, even during the prolonged 2019 flood event, 316,000 acres of crops were grown in the Yazoo Backwater Area (more than 55% of the 10-year average acreage of crops grown in the Yazoo Backwater Area), according to USDA data,³³ as highlighted at page 89 of the Conservation Organization Comments on the Draft SEIS. The Conservation Organizations also understand that farmers were eligible to receive disaster relief or other forms of compensation to minimize economic losses due to the inability to plant crops on the Yazoo Backwater Area lands that could not be planted as a result of the 2019 flood event.

²⁹ FSEIS, Appendix E (Public Comments) at 13.

³⁰ Email from Olivia Dorothy, American Rivers, to Kent Parrish, U.S. Army Corps of Engineers Vicksburg District, dated December 11, 2020 (making the following request: “The FSEIS documents indicate that the 2019 Flood After Action Review is available upon request. I am requesting those documents, please send me the full report and any appendices or other supporting documentation.”)

³¹ FSEIS, Appendix E (Public Comments) at 29.

³² This data was provided to the Conservation Organizations in response to a November 2, 2020 Freedom of Information Act request submitted by Earthjustice.

³³ USDA National Agricultural Statistics Service, CropScape Cropland Data Layer.

This information should have been considered by the Corps in the FSEIS, but was not.

2. Yazoo Backwater Levee Accreditation

The FSEIS incorrectly states that the Yazoo Backwater Levee is accredited.³⁴ This levee is in fact not accredited as confirmed by the Corps' National Levee Database, Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, and the Mississippi Department of Environmental Quality (MDEQ).³⁵

A provisional accreditation issued by FEMA in 2010 expired in 2012 because the Corps did not certify that the levee could withstand a 100-year flood event. MDEQ, which manages the levee accreditations in Mississippi, has advised the Conservation Organizations that the Corps also has not recommended the Yazoo Backwater Levee for accreditation since Provisionally Accredited Levee (PAL) Agreements expired in 2014. The Conservation Organizations provided this information and supporting documentation to the Corps on December 11, 2020.³⁶ According to the National Levee Database the minimum design standard for the Yazoo Backwater Levee is 107-feet NAVD. To be certified to provide protection for a 100-year event the levee requires a minimum design standard of 108-feet NAVD because the base flood elevation of the Yazoo River is 105-feet NAVD.

By incorrectly asserting that the Yazoo Backwater Levee is accredited, the Corps is misrepresenting the level of protection provided by the Yazoo Backwater Levee to the public. The lack of accreditation also means that it would be irresponsible for the Corps to operate the Yazoo Pumps during a 100-year flood event when the additional water being pumped into the Yazoo River (up to 9 billion gallons of water a day) would likely overtop the Yazoo Backwater Levee, potentially threatening the levee's integrity and the safety of the 40,000 people who live and work in the Yazoo Backwater Area—the very people that the pumps purport to protect. As a result, the Corps' inclusion of modeling results showing reductions in stage, volume and area of inundation from the Yazoo Pumps during the 100-year flood event is unrealistic, inappropriate, and highly misleading, as highlighted in the Conservation Organization comments on the Draft SEIS. The FSEIS should not claim benefits for reducing the impacts of a 100-year flood—including the unsupported claim that 615 structures would be protected during a 100-year flood with the pumps in place³⁷—because the Corps could not operate the Yazoo Pumps during such an event.

3. Missing EMAP Data

As documented in the 2008 Veto, in EPA's comments on the Draft SEIS, and in the Conservation Organizations' comments on the Draft SEIS (at pages 35-37), the analysis in the FSEIS cannot be reconciled with the baseline wetland acreage identified through the statistically valid, field sample of wetlands carried out under EPA's Environmental Monitoring and Assessment Program (EMAP). This flaw taints the entire FSEIS.

³⁴ FSEIS, Appendix E (Public Comments) at 19.

³⁵ E.g., National Levee Database at <https://levees.sec.usace.army.mil/#/levees/system/5905000041/fema> (accessed November 6, 2020). Lack of accreditation means that the Yazoo Backwater Levee cannot protect Yazoo Backwater communities during flood events at or greater than the 1% chance of exceedance (100-year flood event).

³⁶ Email from Olivia Dorothy, American Rivers, to Kent Parrish, U.S. Army Corps of Engineers Vicksburg District, dated December 11, 2020.

³⁷ See FSEIS at 21.

In response to a November 2, 2020 Freedom of Information Act (FOIA) request submitted to the Corps by the Conservation Organizations, the Corps indicated that they no longer have the data identifying the locations of the EMAP sample sites. By definition, this means that the Corps could not have considered this important information during its preparation of the Draft SEIS or FSEIS. The Conservation Organizations obtained this data through a FOIA submitted to EPA, and provide it to the Corps in pdf form as Attachment A to these comments and in excel form via the email transmitting these comments.

4. Unacceptable Impacts of the Proposed Groundwater Wells

In the Conservation Organizations’ comments on the Draft SEIS, the Conservation Organizations demonstrated that the Corps’ proposal to drill supplemental groundwater wells up to five miles away from the Mississippi River levee is an unacceptable option that would not provide the purported benefits claimed by the Corps. In fact, the Mississippi Delta Comprehensive Multipurpose Water Resource Plan (the Comprehensive Plan) explicitly rejected such a proposal as an “unacceptable option” because groundwater studies show that the Mississippi River “does not directly influence wells at distances greater than about 1 mile from the levee.”³⁸ Accordingly, by locating wells beyond that one-mile limit, the Corps’ proposal would further deplete the aquifer, undercutting if not negating the purported mitigation.

The Conservation Organizations also provided monitoring data corroborating this point³⁹ and showing that the proposed groundwater wells, such as at Straight Bayou and Brown Bayou, would be located in areas where groundwater levels have dropped significantly over time due to excessive pumping and insufficient recharge.⁴⁰ Drilling additional wells in these areas would worsen the overdraft problem and further deplete surface flows—an unacceptable impact, as made clear by the Comprehensive Plan.

Yet, the Corps responded to neither the Comprehensive Plan nor the monitoring data provided by the Conservation Organizations. Instead, the FSEIS relies on a 2001 USGS study for the proposition that “ground water recharge occurs within five miles of the Mississippi River.”⁴¹ But that study is of no assistance because the Corps proposes to locate wells more than five miles away from the Mississippi River Channel, as depicted below.

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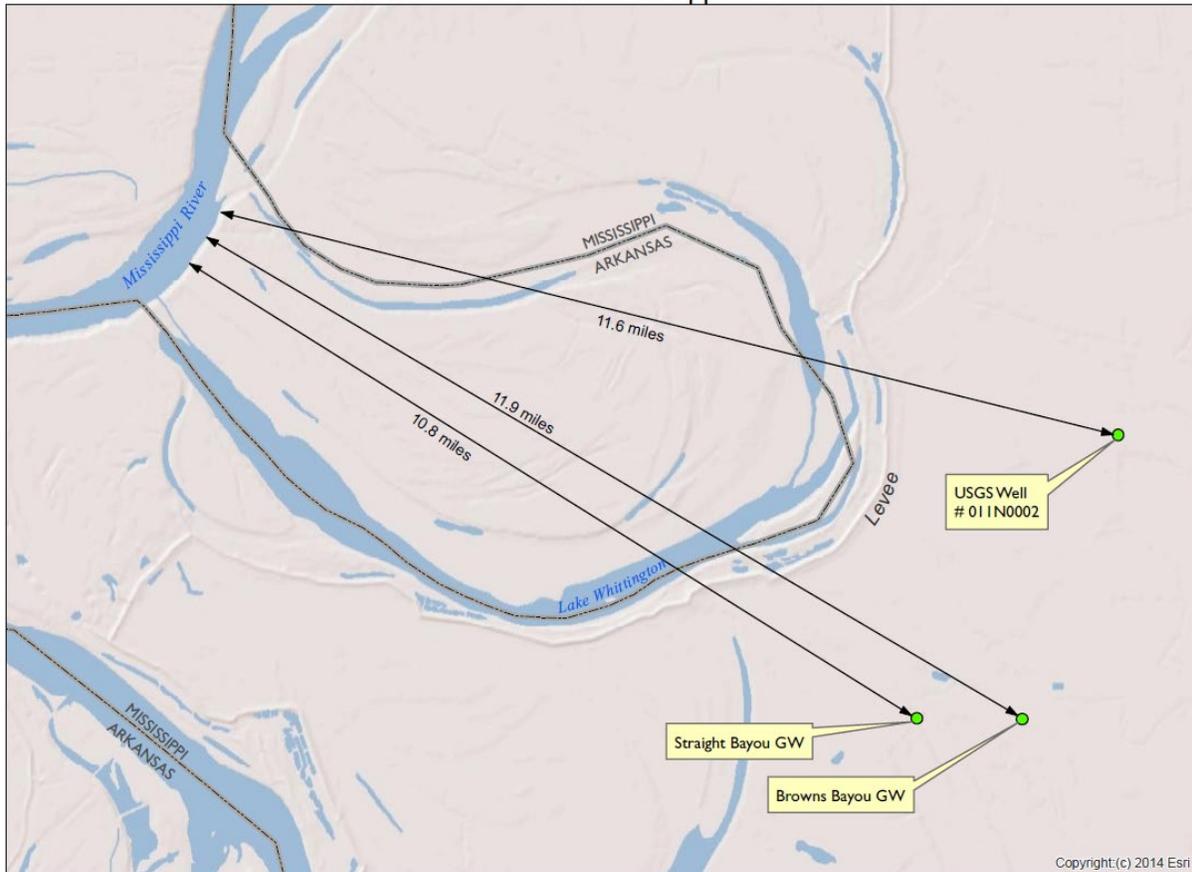
³⁸ USDA, Natural Resource Conservation Service, Mississippi Delta Comprehensive Multipurpose Water Resource Plan provided as Attachment K to the Conservation Organizations’ Nov. 30, 2020 Comments on the Draft SEIS.

³⁹ USGS Groundwater Watch, Field Groundwater Level Measurements for Site Numbers 334957090564301 - 011F0020 BOLIVAR & 334106090590902 - 011N0002 BOLIVAR, provided as Attachment M to the Conservation Organizations’ Nov. 30, 2020 Comment Letter.

⁴⁰ The Conservation Organizations have provided a map showing the location of the USGS monitoring well, as well as the proposed wells at Straight Bayou and Brown Bayou, all of which are more than one mile away from the levee. See Attachment B to these comments.

⁴¹ FSEIS Appendix E (Public Comments) at 27.

Distances from Wells to Mississippi River Channel



These wells are thus in an area beyond the influence of the River, as shown by *both* the 2001 USGS study and the Comprehensive Plan. In fact, the adjacent USGS groundwater monitoring well shows a significant decline in groundwater levels over time, proving that the River is not recharging this area.⁴² The Corps’ proposal to drill additional wells will therefore deplete the aquifer and further drawdown baseflows, causing adverse impacts which the Corps has entirely failed to address.

5. Agricultural Lands and Structures

As the Corps is well aware—and as discussed in the Conservation Organizations’ Comments on the Draft SEIS—neither the Draft SEIS nor the FSEIS include an analysis of the economic costs or benefits of the Proposed Plan. This precludes a full assessment of the project’s impacts under NEPA and prevents the Corps from demonstrating that the project benefits will exceed the project costs, as required by law for all federal flood damage reduction projects.

The FSEIS explicitly acknowledges that “[a]n updated cost estimate has not been developed” for the Proposed Plan.⁴³ However, simply applying the costs of inflation to the Corps’ 2007 cost estimate

⁴² USGS Groundwater Watch at 3-4, provided at Attachment M to the Conservation Organizations’ Nov. 30, 2020 comments.

⁴³ FSEIS, Appendix E (Public Comments) at 17.

demonstrates that the costs of the Yazoo Pumps have ballooned to at least \$450 million, as noted in the Conservation Organizations' comments on the Draft SEIS.

The few tidbits of information relating to potential benefits in the FSEIS strongly suggest that these significant costs will be much greater than any potential project benefits. Notably, the FSEIS concludes that just 28,700 acres of crop acres a year are expected to benefit from the project:

“With existing conditions, the annual damages to the number of agricultural acres total 36,600 while with the pumps in place, the annual agricultural acres damaged decreases to 7,900. The agricultural crop acres benefited are expected to be 28,700 acres per year over the life of the project.”⁴⁴

In accounting for any benefits attributable to these acres, the Corps would have to account for the fact that planting can often occur even after flood events, and that agricultural damages can often be offset through other federal and state programs. For example, as noted above, even during the prolonged 2019 flood event, 316,000 acres of crops were grown in the Yazoo Backwater Area (more than 55% of the 10-year average acreage of crops grown in the Yazoo Backwater Area), according to USDA data.⁴⁵ In addition, the Conservation Organizations understand that farmers were eligible to receive disaster relief or other forms of compensation to minimize economic losses due to the inability to plant crops on the Yazoo Backwater Area lands that could not be planted as a result of the 2019 flood event.

Since the FSEIS does not assess economic benefits, the public must assume that agricultural benefits would still constitute 80% of project benefits as determined in the 2007 FSEIS, which the current FSEIS is tiered to. However, if 80% of the project benefits would come only from benefits attributable to the 28,700 acres of cropland identified in Appendix F-1, it is extremely unlikely that the project benefits could exceed the costs of the Proposed Plan, which have certainly ballooned to well over \$450 million.

The FSEIS provides equally limited information on potential benefits to structures, and provides no information on the source of the structure data or the time period in which the data on structures was collected.⁴⁶ The date of any structure inventory is particularly relevant since older data would not account for the precipitous decline in the population of the Yazoo Backwater Area since 2007 and the related decline in the total number of households.⁴⁷ In addition, the limited and unsupported structure data provided in the Table at page 21 of the FSEIS is different than the limited structure data provided at page 9 in Appendix F-1.

Moreover, the FSEIS does not include any assessment regarding the primary areas where structural damages occurred during the 2019 flood despite the fact that this information, which is critical to formulating any type of meaningful approach to reducing flood damages to structures, was provided to the Corps in the Conservation Organizations' scoping comments (at pages 24-25). This information, which is provided again below, strongly suggests that limited and very targeted non-structural solutions such as elevating and floodproofing homes, elevating a portion of the roadway, and improving

⁴⁴ FSEIS, Appendix F-1 (Environmental Justice) at 9.

⁴⁵ USDA National Agricultural Statistics Service, CropScape Cropland Data Layer.

⁴⁶ See FSEIS, Table at page 21; Appendix F-1 (Environmental Justice) at 7-9 (which acknowledges that not all of the structures counted actually flood).

⁴⁷ See FSEIS, Appendix B (Figures), Figure 4.1 at 10 and Figure 4.4 at 13.

management of Eagle Lake would be the most effective and cost-effective way to reduce structural flood damages in the Yazoo Backwater Area.

During the 2019 flood, structural damages within the Yazoo Backwater counties were highly concentrated with **76% of all structural damage** and **85% of all structural monetary damages** occurring in Warren County, which includes the Eagle Lake community and extensive areas located outside of the boundaries of the Yazoo Backwater Area (see Figure below). In 2019, relatively few structures were affected by flooding in Issaquena and Sharkey counties, the two counties located entirely within the Yazoo Backwater Area, according to Mississippi Emergency Management data. Within Issaquena and Sharkey counties a total of 53 homes and 19 mobile homes were affected. Of those, 27 homes had only minor or very minor damage. Data for other counties include large areas that would not be affected by the Pumps.

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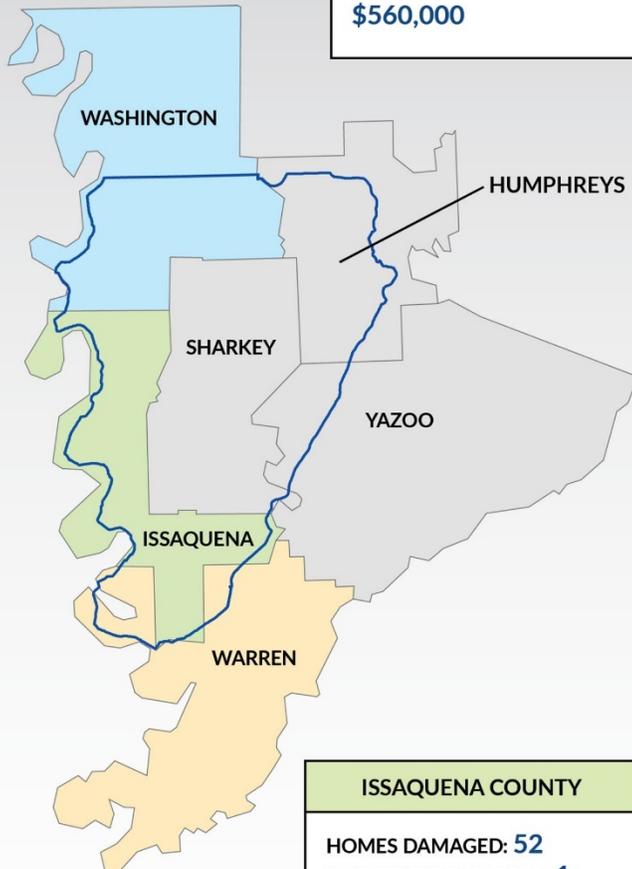
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YAZOO BACKWATER 2019 FLOOD DAMAGES*

During the prolonged 2019 flood, homes and businesses in the counties that make up the Yazoo Backwater Area sustained \$12.3 million in structural damage. This damage was concentrated in Warren County (including the Eagle Lake community). Warren County sustained 85% of the monetary damage. Flood mitigation, such as elevating structures, purchasing floodplain easements, and elevating flood-prone roads, is rarely practiced in the Yazoo Backwater Area.

WASHINGTON COUNTY
NO DAMAGES REPORTED

HUMPREYS, SHARKEY AND YAZOO COUNTIES
HOMES DAMAGED: **62**
BUSINESSES DAMAGED: **3**
TOTAL MONETARY DAMAGE: **\$560,000**



WARREN COUNTY
HOMES DAMAGED: **358**
BUSINESSES DAMAGED: **14**
TOTAL MONETARY DAMAGE: **\$10,442,000**

% OF ALL FLOOD DAMAGES OCCURRING IN WARREN COUNTY



All structures damaged



All monetary damage



Homes damaged



Homes-monetary damage



Businesses damaged



Businesses-monetary damage

ISSAQUENA COUNTY
HOMES DAMAGED: **52**
BUSINESSES DAMAGED: **1**
TOTAL MONETARY DAMAGE: **\$1,335,000**

*Estimated damages to homes and businesses in counties that fall within the Yazoo Backwater Area, as reported by the Mississippi Emergency Management Agency. It is unclear how much of the damage reported occurred outside the Yazoo Backwater Area (outlined in blue).

Conclusion

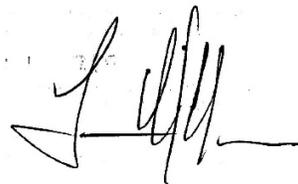
The Conservation Organizations staunchly oppose the Proposed Plan which is clearly prohibited by the 2008 Clean Water Act § 404(c) Final Determination and the Clean Water Act 404(b)(1) Guidelines. The Conservation Organizations urge the Corps to abandon the Proposed Plan and the deeply flawed FSEIS, and instead focus on opportunities for providing meaningful, sustainable, and immediate benefits to the communities in the Yazoo Backwater Area while restoring this ecologically critical region.

Please contact Olivia Dorothy with American Rivers (odorothy@americanrivers.org, 217-390-3658) or Jill Mastrototaro with Audubon Mississippi (Jill.Mastrototaro@audubon.org, 504-481-3659) if you have any questions or would like additional information.

Respectfully submitted,



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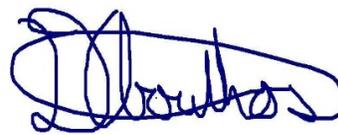
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