December 8, 2000

Via Federal Express

Department of the Army
U.S. Army Corps of Engineers
Vicksburg District
4155 Clay Street
Vicksburg, Mississippi 39183-3435
ATTN: CEMVK-PP-D

Re: Comments on the Draft Yazoo Backwater Area Reformulation Report and Supplement No. 1 to the 1982 Yazoo Area Pump Project Final Environmental Impact Statement

Dear Sir:

These comments are submitted on behalf of: Earthjustice Legal Defense Fund; Sierra Club; Gulf Restoration Network; American Rivers; Center for Constitutional Rights (Mississippi); Concerned Parents of Leland County (Mississippi); Environmental Defense; Friends of the Earth; Mississippi River Basin Alliance; Mississippi Workers for Human Rights; Natural Resources Defense Council, and Taxpayers for Common Sense (collectively, the "Conservation, Taxpayer, and Citizen Groups").

Each of these organizations strongly oppose construction and operation of the Yazoo Backwater Pumping Plant (the "Yazoo Pumps" or the "Pumps").

The Yazoo Pumps are an environmentally devastating, enormously expensive, antiquated project designed to drain water from one of the most sparsely populated regions in the state of Mississippi. Though the U.S. Army Corps of Engineers (the "Corps") has not seen fit to proceed with this project for almost 60 years, it now wants to do so by building the world's largest hydraulic pumping plant so it can pump up to 6 million gallons of water a minute from one side of a Corps-built flood control structure to the other side of that structure. The Yazoo Pumps will cost federal taxpayers well over $181 million to construct. Taxpayers will then pay almost $1 million more each year for at least the next 50 years to operate the Pumps. Fully funded, the Yazoo Pumps will cost federal taxpayers well over $207 million.

The Yazoo Pumps will cause enormous and unacceptable environmental harm. The U.S. Environmental Protection Agency ("EPA") has determined that the Yazoo Pumps will drain and damage over 200,000 acres of ecologically significant wetlands, and will completely alter the hydrology of the project area. In addition to the appalling wetland losses and the resulting impacts on fish and wildlife, the Yazoo Pumps will

degrade water quality, adversely affect water quantity, and promote increased pesticide use in an area already plagued by toxic contamination.

Construction and operation of the Yazoo Pumps would violate Section 404 of the Clean Water Act due to the magnitude and severity of the environmental impacts that would result from the project, the fact that those impacts could be entirely avoided by use of a wholly nonstructural flood damage reduction plan, and the failure of the Corps to require compensatory mitigation. By draining wetlands to increase agricultural production on marginal lands that have always flooded, the Yazoo Pumps also would undeniably violate the nation's wetlands, floodplain, and agricultural policies.

The Conservation, Taxpayer, and Citizens Groups strongly concur with EPA and the U.S. Fish and Wildlife Service ("Fish and Wildlife"), both of which have advised the Corps that this project must not proceed. The Conservation, Taxpayer, and Citizens Groups also agree with Secretary of the Interior Bruce Babbitt that the Yazoo Pumps are the "most cockamamie" project we have ever heard of, and with other federal employees who have described the Yazoo Pumps as "a boondoggle of the greatest magnitude," and the "worst of the worst" for the Corps.[1]

It is far past time for the Corps to stop repeating the disastrous mistakes of the past. At a time when the federal government is poised to spend billions of dollars to attempt to correct the devastating environmental impacts caused to the Everglades by the Corps' activities in the state of Florida, the Corps should not be recommending that federal taxpayers spend $207 million to completely alter the hydrology of yet another region of the country.

SUMMARY OF COMMENTS

For the reasons set forth below, the Conservation, Taxpayer, and Citizens Groups strongly urge the Corps to: (a) stop all planning for the Yazoo Pumps; (b) issue a notice in the Federal Register stating that all planning on the project has stopped, that no Record of Decision recommending construction and operation of the Yazoo Pumps will be signed, and that the plan recommended in the draft supplemental environmental impact statement is not authorized; and (c) formally recommend to Congress that the currently authorized project be deauthorized.

First, the Yazoo Pumps will cause environmental devastation on a scale that is both inconceivable and unacceptable. EPA has concluded that the Yazoo Pumps will

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[1] Editorial, *Big Muddy, Politics Soils Corps of Engineers*, Clarion Ledger , Oct. 1, 2000 (quoting Bruce Babbitt); David Quammen, *Backwater Boondoggle*, Audubon, January-February 1998, at 100 (quoting Ralph Pearce, U.S. Forest Service); Michael Grunwald, *Engineers of Power, Inside the Army Corps of Engineers, Working to Please Hill Commanders*, Washington Post, Sept. 11, 2000, at A1.

alter the hydrology of the entire project area, and will drain and damage over 200,000 acres of ecologically significant wetlands. Fish and Wildlife has concluded that the Pumps are likely to adversely affect the pondberry, a federally listed endangered species, and that formal consultation under the Endangered Species Act is necessary before the Corps may take any further action on the project. The Yazoo Pumps also will drain and damage wetlands in areas that currently are being managed by the federal government for fish and wildlife habitat.

The Corps' claim that the project will improve the environment is a sham. In an overt breach of trust, the Corps has based this claim on environmental benefits that are physically impossible to obtain.

Both EPA and Fish and Wildlife have concluded that the project will cause such substantial and unacceptable adverse environmental consequences that it must not proceed. The Yazoo Pumps are vehemently opposed by a host of national, regional, and state-wide environmental organizations; by the largest newspaper in the state of Mississippi, *The Clarion Ledger*, which has repeatedly and consistently editorialized against the project; by citizens within the project area and throughout the state of Mississippi; and by citizens from throughout the Nation.

Second, the Yazoo Pumps are an unwarranted agricultural drainage project designed to benefit large landowners; the Pumps will not provide real flood protection to people in need. The Yazoo Pumps are specifically designed to drain wetlands so that landowners can increase agricultural production on marginal lands that have always flooded. Indeed, the Corps acknowledges that over 83% of the project benefits are from agriculture. Significantly, the Draft SEIS does not identify even a single home that will be free from flooding once the project is built.

The $207 million that it will cost to build and operate the Pumps would be far better spent meeting real needs of the communities in the region that have been neglected for far too long. Those tax dollars should be used to improve basic services, provide targeted and real flood protection, reduce pesticide pollution, restore wetlands and other vital natural resources, and diversify the region's economy to increase opportunities in the region.

Third, the project violates the Clean Water Act, and the nation's wetlands, floodplain, and agricultural policies. The Yazoo Pumps violate Section 404 of the Clean Water Act because of the magnitude and severity of the environmental impacts that they will cause, the fact that those impacts could be entirely avoided by the use of a wholly nonstructural flood damage reduction plan, and the Corps' failure to require compensatory mitigation. By draining wetlands to increase agricultural production on marginal lands that have always flooded, and by draining lands currently enrolled in the

Conservation Reserve Program and the Wetlands Reserve Program, the Yazoo Pumps also undeniably violate the nation's wetlands, floodplain, and agricultural policies.

Fourth, the Corps' recommended alternative is not authorized, and may not proceed without new authorization. Any such authorization would be subject to the standard cost share requirements imposed by Section 2213 of the Water Resources Development Act. 33 U.S.C. § 2213. The Conservation, Taxpayer, and Citizens Groups will strongly oppose any such authorization. The Corps also has not prepared a post authorization change report as required by the Corps' engineering regulations. ER 1105-2-100, Appendix G, Section III.

Fifth, the project is not economically justifiable. An independent economic analysis commissioned by EPA concludes that the Yazoo Pumps cannot be economically justified, and that the Corps' economic analysis is severely and fundamentally flawed. Indeed, in addition to other flaws, that economic analysis concludes that the Corps has overestimated just the agricultural benefits of the Pumps by $144 million.

Sixth, the Corps' draft supplemental environmental impact statement ("Draft SEIS") is fundamentally and fatally flawed. It does not provide either a basis for making a reasoned choice among alternatives, or a full and objective assessment of the environmental impacts of the project as required by the National Environmental Policy Act ("NEPA"). Among numerous other deficiencies, the Draft SEIS bases its entire impacts analysis on a fundamentally flawed hydrologic assessment that severely underestimates the impacts of the project; contains a fatally flawed mitigation analysis; ignores the cumulative losses of wetlands in the region; fails to evaluate the impacts on two entire classes of animals, amphibians and reptiles; fails to adequately evaluate a wholly nonstructural alternative; omits critical supporting documentation and data; and is rife with inconsistencies and errors. It also appears that the Corps is not considering public comment in a manner consistent with the requirements of NEPA.

DETAILED COMMENTS

1. The Yazoo Pumps Will Cause Environmental Devastation On A Scale That Is Inconceivable And Unacceptable

The Yazoo Pumps will cause devastating environmental impacts that cannot be justified in any way, and that simply are not acceptable. The impacts are not acceptable to EPA and Fish and Wildlife, both of which have concluded that the Yazoo Pumps will cause such substantial and unacceptable adverse environmental consequences that it must not proceed.

The environmental impacts are not acceptable to a host of national, regional, and state-wide environmental organizations, including, but by no means limited to, American

Rivers, Audubon Society, Delta Land Trust, Earthjustice Legal Defense Fund, Environmental Defense, Gulf Restoration Network, Mississippi River Basin Alliance National Wildlife Federation, Natural Resources Defense Council, and Sierra Club all of whom have publicly opposed this project.[2]

The environmental impacts of this project are not acceptable to citizens within the project area and throughout the state of Mississippi, and they are not acceptable to citizens from throughout the Nation. As of the date of this letter, we are aware that over 1,700 citizens already have submitted electronic comments telling the Corps and President Clinton that the Yazoo Pumps must not be built.

The environmental impacts of this project are not acceptable to the largest newspaper in the state of Mississippi, *The Clarion Ledger*, which has repeatedly and consistently editorialized against the Pumps. These editorials, along with letters to the editor opposing the project (which we request be included as formal comments in opposition to the Yazoo Pumps), and articles discussing the Yazoo Pumps are attached at Tab A.

The Draft SEIS makes much of an alleged consensus process to identify options for the Yazoo Pumps. None of the Conservation, Taxpayer, or Citizen Groups were involved in that process. And clearly, that process did not produce an acceptable plan.

(a) The Yazoo Pumps Will Cause Ecosystem-Wide Destruction

EPA has determined that the Yazoo Pumps will alter the hydrology of the entire project area, and will drain and damage over 200,000 acres of wetlands.[3] This is twice as many wetlands as are destroyed in a year by all public and private projects nationwide. It

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[2] Environmental organizations also have made numerous requests for a thorough and independent review of the Corps' evaluation of the Yazoo Pumps. *E.g.*, Letter from Earthjustice Legal Defense Fund, Sierra Club, National Wildlife Federation, and the Gulf Restoration Network to Secretary of the Army Louis Caldera (March 20, 2000) (requesting an independent review of the Yazoo Pumps planning process); Letter from Earthjustice Legal Defense Fund, Sierra Club, National Wildlife Federation, Environmental Defense Fund, Izaak Walton League, and American Rivers to William J. Clinton, President (April 28, 1999) (requesting an interagency review of the Yazoo Pumps, the Big Sunflower River Maintenance Project and the St. Johns Bayou/New Madrid Floodway project); Letter from Earthjustice Legal Defense Fund, Gulf Restoration Network, and Sierra Club to Joseph W. Westphal, Assistant Secretary of the Army (Civil Works); Bruce Babbitt, Secretary, Department of the Interior; Charles Fox, Assistant Administrator, U.S. Environmental Protection Agency; Maj. Gen. Philip R. Anderson, Commander, Mississippi Valley Division (July 20, 1999) (restating the need for an immediate interagency review of the Yazoo Pumps and requesting establishment of a Federal Advisory Committee to assist in that review).

[3] As is discussed in more detail in Section 6 below, the Corps' analysis of impacts is fatally flawed, and inaccurate.

is six times as many wetlands as the Corps permits all private developers to destroy in an entire year.

The seminal textbook on wetlands makes clear that significant and ecosystem-wide changes can occur as a result of even small alterations in wetlands hydrology: "**When hydrologic conditions in wetlands change even slightly, the biota may respond with massive changes in species composition and richness and in ecosystem productivity**." William J. Mitsch and James G. Gosselink, *Wetlands* (2nd ed.) (1993) at 68 (emphasis added). This happens because:

> Hydrology affects the species composition and richness, primary productivity, organic accumulation, and nutrient cycling in wetlands. . . . Water depth flow patterns, and duration and frequency of flooding, which are the result of all the hydrologic inputs and outputs, influence the biochemistry of the soils and are major factors in the ultimate selection of the biota of wetlands. . . . Hydrologic conditions can directly modify or change chemical and physical properties such as nutrient availability, degree of substrate anoxia, soil salinity, sediment properties, and pH.

Id. at 67-68. In short, "[h]ydrology is probably the single most important determinant of the establishment and maintenance of specific types of wetlands and wetland processes," and even "small changes in hydrology can result in significant biotic changes." *Id*. at 68.

EPA has advised the Corps that the most severe impact of the Pumps will be the complete elimination of wetland hydrology (*i.e.*, the wetlands will be entirely drained and destroyed). Even where the wetlands are not completely destroyed, EPA has concluded that the Pumps will so alter their hydrology as to significantly and adversely affect fisheries, wildlife habitat, water quality, water quantity, soil moisture recharge, deposition of sediments and nutrients, and flood pulse conditions. Fish and Wildlife has concluded that the Pumps are likely to adversely affect the pondberry, a federally listed endangered species, and that formal consultation under the Endangered Species Act is necessary before the Corps takes any further action. EPA Comments on the Draft SEIS; Fish and Wildlife Comments on the Draft SEIS.

The Yazoo Pumps will harm wetlands that federal taxpayers currently are paying to protect. For example, the Pumps will impact wetlands managed as mitigation for previously constructed projects in the region, and will impact tens of thousands of acres of forested wetlands on national forest, national wildlife refuge, and state lands. Lands enrolled in the Wetlands Reserve Program (approximately 22,500 acres in the project area) and the Conservation Reserve Program (approximately 9,000 acres in the project area) also will be impacted. EPA Comments on the Draft SEIS; Fish and Wildlife Comments on the Draft SEIS.

The 200,000 acres of wetlands that will be drained and damaged by the Yazoo Pumps are vital to the health, economy, and way of life of the residents of the Yazoo Backwater Area. It is well recognized -- and indeed codified in the Corps' own regulations -- that wetlands serve many important functions. Wetlands help reduce flood levels, filter pollutants from water, and provide vital habitat for fish and wildlife. *See* 33 C.F.R. §320.4(b)(2).

As importantly, by draining wetlands to increase agricultural production, the Yazoo Pumps will promote increased pesticide and fertilizer use in an area already plagued by toxic contamination. Pesticides and fertilizers have made waterways in the region unfit for fishing, swimming, and drinking, and virtually every farm field in the area is contaminated with at least the deadly pesticide DDT. Exposure to pesticides has been linked to some cancers and other diseases, including birth defects.

(b) The Yazoo Pumps Will Not Improve The Environment, And The Corps' Claims To The Contrary Are An Overt Breach Of Trust

The Corps claims that the Yazoo Pumps will provide "substantial environmental benefits." Draft SEIS ¶5 at SEIS-2. According to the Corps, these benefits will be realized by its plan to purchase conservation easements on 62,500 acres of agricultural land located below 87 feet NGVD and within the project area.[4] Any such purchases are to be from willing sellers only. Draft SEIS ¶ 65a at SEIS-26. According to the Corps, these conservation easements will result in environmental benefits that will completely obviate the need for any compensatory mitigation, and that will produce $2.96 million in annual benefits.[5] Draft SEIS Table 6 at SEIS-36.

These promised environmental benefits, however, are a total sham. In an overt breach of trust, the Corps has claimed benefits for reforesting agricultural lands that do not exist. Fish and Wildlife has determined that in the project area there are fewer than 9,100 acres of agricultural land in private ownership below 87 feet NGVD. Thus, the Corps has improperly claimed environmental and economic benefits for reforesting 53,400 acres of privately owned agricultural land that do not exist. **In short, it is physically impossible to obtain the environmental benefits claimed by the Corps.** As is discussed in detail below, the Corps' claims of economic benefits from the nonstructural reforestation component also violate the *Principles and Guidelines*.

Even assuming for the sake of argument that the Corps' acreage analysis is correct (which, it is not), the Corps still would have no hope of achieving the claimed

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[4] The Corps does not attribute any environmental benefits to the Pumps themselves.

[5] The Corps claims these benefits consist of insurable losses. Draft SEIS Table SEIS-6 at SEIS-36. As is discussed below, this benefit claim is not proper under the Corps' Principles and Guidelines.

"benefits" from this nonstructural reforestation component. According to the Corps, the 62,500 acres of reforestation "is based on the amount of open acres that currently exist within the 1-year frequency flood plain."[6] Draft SEIS, Appendix 1 Mitigation ¶ 59 at 1-28. Thus, underlying the entire impacts analysis of this project is the Corps' assumption that it can purchase conservation easements on each and every acre of what it believes to be the currently existing agricultural land below 87 feet. This assumption is wholly irrational. There is not a single piece of evidence in the Draft SEIS to suggest that the Corps will be 100% successful in this endeavor.

Quite to the contrary, the Corps has placed significant constraints on its ability to implement this nonstructural plan component, virtually ensuring failure. One year after the Pumps begin operation (currently scheduled for 2008), the Corps will stop all efforts to obtain conservation easements, **even if not a single easement has been purchased**.[7] Constraining itself even further, the Corps will not begin to purchase those easements until the Record of Decision is signed, the real estate documentation is finalized, and funds are **sought and appropriated**.[8] Draft SEIS, Appendix 1 Mitigation ¶ 91 at 1-42.

Just as importantly, even if all 62,500 acres of conservation easements were purchased (which they cannot be), they still would not create the environmental benefits

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[6] Fish and Wildlife also has advised the Corps that there are not 62,500 acres of available agricultural land in private ownership within the 1 year floodplain in the project area. The 1 year floodplain is often referred to as being at the 87 feet NGVD level, even by the Corps. But in reality, in many areas the 1 year floodplain is above 87 feet due to the progressive upward slope of the basin. According to Fish and Wildlife, there are only 58,894 privately owned agricultural acres within the 1 year floodplain of the project area. Fish and Wildlife Comments on the Draft SEIS.

[7] If by that time, the Corps has purchased 17,028 acres of conservation easements below 87 feet -- which is physically impossible -- the conservation easement program will end. If the Corps has purchased fewer than 17,028 acres of conservation easements by that time, it will convert the conservation easement program to a mitigation program that will attempt to obtain up to a total of 17,028 acres for mitigation purposes. Thus, the first 17,028 acres of conservation easements are to be counted towards mitigating the impacts of the Yazoo Pumps. As a result, the Corps cannot properly claim any additive environmental benefits from the first 17,028 acres of conservation easements. The Corps likewise cannot properly claim any monetary benefits for any of these 17,028 acres (though it appears that they have). The failure of the Corps' plan to satisfy mitigation requirements is discussed in detail below.

[8] "The process of securing conservation easements could begin in 2001 or after the Record of Decision is signed. Purchasing of the easements will be undertaken as quickly as the real estate process can be completed and **as funds become available**." Draft SEIS, Appendix 1 Mitigation ¶ 91 at 1-42 (emphasis added). Each of these steps will take time to complete, further limiting the potential success of the Corps' conservation easement efforts. For example, the real estate documentation step will include preparation of a Real Estate Design Memorandum, approval by higher authorities of the estimated values of the easements included in that memorandum, completion of a cultural resource survey and an HTRW survey on those lands showing the most potential for easement purchase, and negotiations with the landowner over price. Main Report ¶ 207 at 97-98.

claimed by the Corps. Planting tree seedlings on frequently flooded agricultural lands does not create wetlands, and the conservation easements will not require landowners to modify the hydrology of their lands to help ensure the existence of wetland hydrology. Moreover, the Yazoo Pumps will inalterably change the hydrology of the very areas that are to be reforested through the conservation easements. In addition, any trees planted pursuant to the conservation easements can be harvested via normal silvicultural practices, including clear cutting. It is important to recognize that "the use of wetlands for any purpose involving the harvesting of the vegetation is bound to have a significant effect on the way the system functions." *Wetlands* at 517. Finally, there is to be no monitoring of individual conservation easements to ensure that they are in fact providing the environmental benefits claimed by the Corps, or even that the terms of the conservation easements are being complied with.[9] *See* Main Report ¶ 222 at 111 ("mitigation monitoring will not be part of the recommended plan")

2. The Yazoo Pumps Are An Unwarranted Agricultural Drainage Project Designed To Benefit Large Landowners; The Pumps Will Not Provide Real Flood Protection To People In Need

The Yazoo Pumps are an unwarranted agricultural drainage project designed to benefit large landowners in the project area; the Pumps will not provide real flood protection to people in need.[10] Indeed, the Yazoo Pumps are specifically designed to drain wetlands so that landowners can increase agricultural production on marginal lands that have always flooded. The Corps makes clear that over 83% of the project benefits are from agriculture.[11]

As of 1992, there were only 234 farms in the entire project area, with an average size of 1,250 acres.[12] SEIS ¶ 94 at SEIS-43. The Draft SEIS does not provide farm ownership information, so it is not possible to discern whether some landowners or

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[9] The Draft SEIS, however, seems to suggest that some limited monitoring may be undertaken to ensure initial tree seedling survival (historically conducted by the Corps in the Vicksburg District for only up to three years), but that will not ensure that the environmental benefits claimed by the Corps are actually being achieved.

[10] EPA's hydrologic analysis makes it clear that the effectiveness of the Pumps at reducing flood levels at higher elevations where most of homes in the project area located must be severely questioned. EPA Comments on the Draft SEIS.

[11] According to the Corps, 67% of annual project benefits are agricultural crop benefits, while other agricultural benefits constitute another 16.5% of project benefits. Main Report at Table 15.

[12] The Conservation, Taxpayer, and Citizens Groups note that the Main Report contradicts this number, claiming that as of 1992 there were 234 farms in the project area having an average size of 736 acres. Main Report ¶ 66 at 27. Using either figure, however, it is proper to say that on average the farms in the project area are quite large. The Corps does not provide any later information on farm size or numbers.

corporations own multiple farms in the project area. It is possible to discern from the Corps' data, however, that at least some of these large landowners currently are growing crops only to earn farm subsidy payments. The net agricultural returns in the project area "are negative $21.06" per acre (in the base year of 2006 without the Pumps). Even with the Pumps in operation, net agricultural returns would grow to only $5.16 per acre. If the Corps' data is in fact correct, the Corps in essence is recommending that federal taxpayers spend an additional $207 million to help these landowners receive even more farm subsidy payments. Shabman and Zepp Review Comments on "Yazoo Backwater Reformulation" dated September 24, 2000 ("Shabman Review Comments").

Only 15.6% of the project benefits are attributed to non agricultural benefits. These benefits include such things as avoided Federal Insurance Administration costs, avoided emergency costs, and benefits for the protection of roads, bridges, urban streets, and structures. As Dr. Leonard Shabman and Laura Zepp from the Department of Agricultural and Applied Economics at Virginia Tech have stated, the Corps' benefits calculations make clear that the Yazoo Pumps plan "**is formulated principally to protect the owners of farm land from predictable and minor seasonal flooding.**" Shabman Review Comments (emphasis in original).

Significantly, neither the Main Report nor the Draft SEIS (or its Appendices), identify even a single home that will be free from flooding once the project is built. Nor could they. For example, during some significant flood events, the Pumps will not even be turned on. The Pumps can only be turned on when the water levels on the landside of the Steele Bayou Control Structure are higher than the water levels of the Mississippi River, and the Steele Bayou floodgates are closed. Draft SEIS Appendix 6 ¶¶ 34, 35, 51(e) at 6-27, 6-35. Thus, the Pumps could not be turned on during a flood like the one that happened in 1991, because the Steele Bayou floodgates would not be closed and the Pumps would be torn apart by the volume of water passing through them. Draft SEIS Appendix 6 ¶ 30 at 6-24.

As importantly, the Corps does not have the necessary hydrologic data, and has not done the necessary level of analysis, to make any assurances that the Pumps will prevent homes from flooding. As is discussed more detail in Section 6 below, the Corps has used layers of inappropriate, simplistic, and coarse models to attempt to determine the impacts of the Yazoo Pumps on the complex hydrology of the project area. To make claims that specific homes will be protected by the Pumps, the Corps would need to use a decidedly more complex hydrologic model, and analyze significantly more data than it has to date. Moreover, EPA's hydrologic analysis also makes it clear that the effectiveness of the Pumps at reducing flood levels at higher elevations where most of the structures are located must be severely questioned. EPA Comments on the Draft SEIS.

In evaluating whether the Yazoo Pumps project should proceed, it also is extremely important to recognize that the federal government has already built significant

structural flood control projects in the region. The Corps has constructed the Mississippi River Mainline Levees, the Yazoo Area and Satartia Area Levees, the original Big Sunflower River project, the 28 mile connecting channel between the Little Sunflower River and Steele Bayou, the 65 mile Will Whittington Canal Auxiliary Channel and Levees, the 6 mile connecting channel between the Big Sunflower River and the Little Sunflower River, the Steele Bayou Control Structure, the Muddy Bayou Control Structure, and the Little Sunflower River floodgate. In historic dollars, the Corps has spent $2.4 billion on structural flood control projects just within the Yazoo Basin (this does not include the costs of the Mississippi River Mainline Levees).

As importantly, the Corps advised Congress 41 years ago that the flood control structures then in place would allow the Corps to provide the level of flood protection authorized for the Yazoo Backwater Area by the Flood Control Act of 1941, without the need for a pumping plant (*i.e.*, without the Yazoo Pumps):

> Since the original authorization for Yazoo Backwater Protection, important hydraulic changes have taken place due to improvement of channel efficiency in the Mississippi River and to reservoirs and channel improvement in the Yazoo Basin headwater area. These have resulted in less frequent flooding, and shorter duration of flooding, which makes it feasible to develop a simplification of the authorized plan by eliminating pumping at a large saving in project cost. . . . It is apparent that a protection plan for the Yazoo Backwater Area involving levees and floodgates only, which was not feasible under earlier conditions, is now feasible, and will provide a high degree of protection for the foreseeable future without the necessity of pumping.

U.S. Army Corps of Engineers, Vicksburg District, Mississippi River and Tributaries Comprehensive Review Report, Annex L, Yazoo Backwater Project Mississippi at 20 (November 1959).

The Draft SEIS presents no evidence to suggest that the hydrology of the project area has changed so that the authorized level of flood protection is no longer being provided. The Draft SEIS does note that since the project was first authorized, additional lands have been cleared below the 90 foot elevation. But, as is discussed in detail below, the Corps is not authorized to pump water from lands located below 90 feet.

Moreover, it is clear that the Corps is recommending that lands below 90 feet be drained of water only to allow increased agricultural use of those lands. **There is not a single structure located below the 90 foot level in the entire project area.** And, in the entire project area there is only one structure located between the 90 foot and 91 foot level. That structure is a commercial building (metal construction); it is not a home. Yazoo Backwater Reformulation Study Structural Data Base, June 2000, provided

pursuant to Freedom of Information Act Request submitted by Earthjustice Legal Defense Fund.

While the Corps has stated that "an estimated 1,555 structures are affected by flooding," we have been advised that only about 100 structures in the entire area impacted by the Pumps have filed more than one flood loss claim under the National Floodplain Insurance Program. Moreover, the Draft SEIS does not contain any actual structure damage data to guide the Corps' analysis of project need. Instead the Corps estimated the values of structures and their contents in the project area, and ran those estimates through a model that itself estimates how much damage the structures might suffer in certain flood events. Draft SEIS Economic Analysis Appendix, Attachment 7A. The Corps should obtain actual structure damage data, and National Flood Insurance repetitive loss claims data, to determine whether the benefits the Corps has claimed for structure protection in the project area have any validity whatsoever.

The $207 million that it will cost to build and operate the Pumps would be far better spent meeting real needs of the communities in the region that have been neglected for far too long. Those tax dollars should be used to provide targeted and real flood protection, improve basic services, reduce pesticide pollution, restore wetlands and other vital natural resources, and diversify the region's economy to increase opportunities in the region.

The Conservation, Taxpayer, and Citizens Groups strongly support an alternative investment strategy for the region, and the use of a wholly nonstructural approach to flood damage reduction in lieu of the Pumps, both as proposed by EPA.

3. The Yazoo Pumps Violate The Clean Water Act, And Federal Wetlands, Floodplain, And Agricultural Policies

The Yazoo Pumps violate the Clean Water Act, and the nation's wetlands, floodplain, and agricultural policies. The Yazoo Pumps also violate the Corps' mitigation mandates and policies, and are an affront to the Corps' Congressionally mandated mission to protect the environment. The Corps' failure to comply with NEPA and its implementing regulations is discussed in detail in Section 6, below. The Corps may not proceed with a project that violates the law and longstanding, sound policy.

(a) The Yazoo Pumps Violate The Clean Water Act

In carrying out its civil works activities, the Corps must comply with the mandates of Section 404 of the Clean Water Act, and the Section 404(b)(1) Guidelines. 33 U.S.C. § 1323; 33 C.F.R. § 336.1(a). The 404(b)(1) Guidelines prohibit the Corps from proceeding with the Yazoo Pumps if it "will cause or contribute to significant

degradation of the waters of the United States." 40 C.F.R. § 231.10(c). Under the Guidelines, effects that contribute to significant degradation include:

> (1) Significantly adverse effects of the discharge of pollutants on human health or welfare, including but not limited to effects on . . . fish, shellfish, wildlife, and special aquatic sites.
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> (2) Significantly adverse effects of the discharge of pollutants on life stages of aquatic life and other wildlife dependent on aquatic ecosystems . . . .
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> (3) Significantly adverse effects of the discharge of pollutants on aquatic ecosystem diversity, productivity, and stability. Such effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; or
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> (4) Significantly adverse effects of discharge of pollutants on recreational, aesthetic, and economic values.

Id. In addition, no discharge shall be permitted "unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem." 40 C.F.R. § 230.10(d).

Critically, the 404(b)(1) Guidelines prohibit the Corps from proceeding with a civil works projects that will adversely impact wetlands if a less damaging practicable alternative is available. 40 C.F.R. § 230.10(a).

As discussed throughout these comments, the Yazoo Pumps clearly violate the 404(b)(1) Guidelines due to the magnitude and severity of the adverse impacts on virtually every one of the factors identified above. The Yazoo Pumps also violate the Guidelines because each of those impacts could be entirely avoided by the use of a wholly nonstructural flood damage reduction plan, and because the he Corps has failed to require any compensatory mitigation.

EPA already has advised the Corps that the Yazoo Pumps are a candidate for the exercise of EPA's Section 404 veto authority. Clean Water Act Section 404(c) allows EPA to prohibit the Corps from proceeding with the Yazoo Pumps if EPA determines that the project "will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas." 33 U.S.C. § 1344(c).

The Conservation, Taxpayer, and Citizens Groups urge EPA to exercise that veto authority if the Corps elects to proceed with this project.

(b) The Yazoo Pumps Violate The Nation's Wetlands Protection Laws And Policies

Since 1977, the Corps, and every other federal agency, has been directed to provide leadership and take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values in carrying out agency responsibilities. Protection of Wetlands Executive Order (Executive Order 11990), *reprinted in* 42 U.S.C. § 4321. As importantly, Executive Order 11990 provides that each federal agency:

> shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

Id. at Section 2(a). The term "new construction" is defined to include "draining, dredging, channelizing, filling, diking, impounding and related and any structures or facilities begun or authorized after the effective date" of the Executive Order. *Id*. at Section 7(b).

The courts have held that Executive Order 11990 is judicially enforceable and should be given the full force and effect of law. *City of Carmel By-The-Sea v. United States Dep't of Transportation*, 123 F.3d 1142, 1166 (9th Cir. 1997); *City of Waltham v. United States Postal Service*, 786 F. Supp. 105, 131 (D. Mass. 1992). The courts also have found that this Executive Order imposes duties on federal agencies beyond those of NEPA. It requires a specific finding that no practicable alternative to the proposed action exists. *City of Carmel*, 123 F.3d at 1167.

The Yazoo Pumps clearly violate this enforceable Executive Order, and the findings necessary to allow the Corps to proceed with this project have not been, and cannot be, made.

This country also has a well established policy of no net loss of the nation's wetlands. This policy was first established by the Bush Administration. The Clinton Administration added to this policy a goal of achieving a net gain of 100,000 acres of wetlands each year beginning in the year 2005 -- the very year construction of the Pumps is scheduled to begin. This goal is codified for the Corps in the Water Resources Development Act of 1990, which states:

> There is established, as part of the Corps of Engineers water resources development program, an interim goal of no overall net loss of the Nation's remaining wetlands base, as defined by acreage and function, and a long-term goal to increase the quality and quantity of the Nation's wetlands, as defined by acreage and function.[13]

33 U.S.C. § 2317(a)(1). In addition, one of the Corps' primary missions is protection of the environment:

> The Secretary shall include environmental protection as one of the primary missions of the Corps of Engineers in planning, designing, constructing, operating, and maintaining water resources projects.

33 U.S.C. § 2316(a).

The Corps also must comply with its clear and existing mitigation mandates and policies. The NEPA implementing regulations, and the Section 404(b)(1) Guidelines require mitigation for wetland impacts that cannot be avoided. These regulations call for avoiding the wetland impact altogether if the proposed project is not water dependent or if alternatives exist. If the project is water dependent and no alternatives exist, the impact should be minimized by modifying the project. If modification is not possible, the impact should be rectified by restoring the environment. 40 C.F.R. § 1508.20; 40 C.F.R. § 230.10(d). In 1990, The Corps and EPA signed a Memorandum of Agreement on mitigation that establishes policies and procedures to be used in implementing mitigation under Section 404 of the Clean Water Act.

In addition, for each civil works project proposed to Congress, the Corps also must include a mitigation plan or explain why the project will have negligible effects on fish and wildlife. 33 U.S.C. § 2283(d)(2).

The Yazoo Pumps will drain and damage over 200,000 acres of wetlands, undeniably causing irreparable harm to the environment. Indeed, the very purpose of the Pumps is to drain wetlands. The Corps has required no compensatory mitigation for the damage caused by the Pumps, nor could any compensatory mitigation make up for the ecosystem-wide hydrological alterations that the Pumps will cause. In short, the Yazoo Pumps are an affront to the nation's wetlands protection laws and polices, and to the Corps' environmental protection mission.

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[13] The Corps is not the only federal agency charged with promoting the conservation of the nation's wetlands in order to maintain the public benefits they provide. For example, the North American Wetlands Conservation Act provides a broad variety of measures to the Department of the Interior to promote wetland conservation and offset or prevent wetland losses. 16 U.S.C. § 4401 *et seq*.

(c) The Yazoo Pumps Violate The Nation's Agricultural Policies

The federal government is spending billions of dollars to take excess and environmentally sensitive croplands out of production. The Food Security Act of 1985 and the Erodible Land and Wetland Conservation Program, 16 U.S.C. § 3801 *et seq*., encourage the removal of fragile lands from production and provide various opportunities for wetland habitat protection and restoration.

A special conservation provision in this Act, known as "Swampbuster," removes incentives for draining wetlands by eliminating most agricultural subsidies to farmers who drain wetlands to enhance crop production, or who produce commodities on wetlands converted after 1985. That the Corps will be doing the draining does not alter the fact that the Pumps violate the very purpose of the Swampbuster provision. Nor does it alter the impacts of the Swampbuster provision on farmers who take advantage of the Yazoo Pumps by increasing or initiating agricultural production on newly drained wetlands. Where the Yazoo Pumps cause wetlands to entirely lose their wetland jurisdictional status, the entire purpose of Swampbuster will be thwarted.

As importantly, an independent economic analysis of the Yazoo Pumps strongly suggests that at least some of the large landowners in the project area currently are growing crops only to earn farm subsidy payments. Based on data provided by the Corps, the net agricultural returns in the project area "are negative $21.06" per acre (in the base year of 2006 without the Pumps). Even with the Pumps in operation, net agricultural returns would grow only to $5.16 per acre. If the Corps' data is in fact correct, the Corps is recommending that the federal government spend $207 million "**to help landowners grow crops on land that is farmed only to earn farm subsidy payments**." Shabman Review Comments (emphasis in original). Such a use of federal tax dollars clearly violates agricultural policies and common sense.

Moreover, while increased production as a result of the Pumps may help the large landowners in the project area, such increased production is unlikely to help other American farmers. Increased production causes overall prices to drop. As Senator Thad Cochran recently told the New York Times, agricultural "overproduction not just here but all over the world" is a significant problem.[14] Indeed it is a problem that compelled him to sponsor a $7 billion aid package to American Farmers. The Corps does a severe disservice to the nation by recommending that federal taxpayers pay $207 million to increase agricultural production when overproduction already is devastating farm communities.

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[14] Tim Weiner, *Parties in 'Political Bidding Contest' Over Aid to Farmers*, New York Times (National ed). Aug. 4, 1999 at A-14.

(d) The Yazoo Pumps Violate The Nation's Floodplain Policies

Since 1977, the Corps along with all other federal agencies have been directed to take action to "restore and preserve the natural and beneficial values served by floodplains" in carrying out their water resources activities, and "to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." Floodplains are defined to include the 100 year floodplain. Executive Order on Floodplain Management (Executive Order 11988). This executive order was passed to help reduce flood damages by protecting the natural values of floodplains and reducing unwise land use practices in the nation's floodplains.

The National Flood Insurance Program also provides incentives for wise floodplain use. The National Flood Insurance Program allows property owners to purchase flood insurance at subsidized rates. To participate in the National Flood Insurance Program, each county or community is required to adopt and enforce floodplain management ordinances that require that residential buildings be elevated to or above the level of the 100-year flood. Main Report ¶136 at 55; National Flood Insurance Program Website.

All 7 counties/parishes and 19 communities in the project area are participants in the National Flood Insurance Program. Main Report ¶136 at 55; Draft SEIS Appendix 7 ¶ 6 at 7-2 and ¶ 8 at 7-3. Consequently, no residential building in the project area that was built or substantially improved after the date of entry into the National Flood Insurance Program should be below the 100 year flood elevation. Sharkey County, Rolling Fork, Cary, and Anguilla joined the National Flood Insurance Program in 1986, Mayersville joined in 1987, and the unincorporated areas of Issaquena County joined in 1990. National Flood Insurance Program Community Status Book.

The Yazoo Pumps project could not be more at odds with the policies embodied in the Executive Order on Floodplains and in the National Flood Insurance Program. Instead of taking minimal, cost effective, and legally mandated steps to prevent flood damages by ensuring that homes are either not built in the 100 year floodplain, or are elevated above the level of the 100 year floodplain, the Corps has proposed an enormously expensive, mammoth project that will attempt to avoid flood damages to structures by draining water off the 100 year floodplain, and altering the floodplain's natural and beneficial values.

The Draft SEIS does not consider the impacts of the National Flood Insurance Program or its underlying purpose in evaluating the need and justification for the Yazoo Pumps. For example, the Corps has not considered whether residential structures that it is seeking to protect from the 100 year flood are out of compliance with local ordinances. Indeed, the Corps has not even determined the dates of construction of the residential buildings it has evaluated. Yazoo Backwater Reformulation Study Structural Data Base,

June 2000, provided pursuant to Freedom of Information Act Request submitted by Earthjustice Legal Defense Fund (dates of construction not included). The Corps also has not analyzed whether it is appropriate under the *Principles and Guidelines* to claim economic benefits for any such residential buildings that are out of compliance.

4. As A Matter Of Law, The Corps May Not Construct Or Operate The Yazoo Pumps Because They Are Not Authorized By Congress

The Corps may not construct and operate the Yazoo Pumps pursuant to its recommended plan, because that plan is not authorized. As a result, explicit Congressional authorization is required before the Corps may proceed. Any such authorization would be subject to the standard cost share requirements imposed by Section 2213 of the Water Resources Development Act. 33 U.S.C. § 2213. The Conservation, Taxpayer, and Citizens Groups will strongly oppose any such authorization, and will strongly oppose any attempts to waive the local cost share requirement if new authorizing legislation is proposed.

The Flood Control Act of 1941 authorized a plan to reduce backwater flooding in the Yazoo Backwater area by constructing a combination of drainage structures and pumping plants.[15] The authorized plan carefully prescribes the scope of the projects that can be built. Projects are explicitly limited to those that will "prevent the sump level from exceeding 90 feet, mean Gulf level, at average intervals of less than 5 years."[16] Lands below the 90 foot elevation are to be "dedicated to sump storage."[17] Thus, under the existing authorization, waters below the 90 foot elevation may not be pumped or otherwise drained. These limitations have never been removed or altered. A copy of the authorizing language is attached at Tab B.

The Corps has completely ignored this unambiguous limit to the scope of the operation of any pumping facility that may be built for the Yazoo Backwater Area.[18] The

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[15] Specifically, the 1941 Act states: "the extension of the authorized project and improvements contemplated in plan C of the report of March 7, 1941, of the Mississippi River Commission are authorized . . . ." 33 U.S.C § 702a-12(b).

[16] H.R. Doc. No. 359, 77th Congress, 1st Session, at 40 (1941) (March 7, 1941 Report of the Mississippi River Commission, also referred to as the Review Report on the Project for Flood Control of the Mississippi River in its Alluvial Valley, dated 7 March 1941). A copy of the relevant portions of this document are attached at Tab B.

[17] *Id*. The directive that the "land below the 90-foot contour would therefore be dedicated to sump storage" applies to both Plans B and C.

[18] The Corps also has ignored its 41 year old conclusion that no pumps are needed to provide the authorized level of flood protection. As discussed above, in 1959, the Corps concluded that the authorized level of flood protection could be provided without pumps because the significant hydraulic

recommended plan unquestionably exceeds the scope of that authorization. The recommended plan will drain lands well below the 90 foot level, since the Yazoo Pumps will be turned on whenever water levels reach 87 feet NGVD.[19] *E.g.*, Main Report ¶ 160e at 71. The Draft SEIS also makes clear that even this unauthorized plan could be made far worse. The Corps retains the right to revise the operation of the Yazoo Pumps at the "discretion of the Commander, U.S. Army Corps of Engineers." Main Report 188, ¶ 235.

A careful reading of the Corps' documentation also makes clear that in reality, the Corps will turn the Pumps on when water levels are lower than 87 feet. Buried in the Main Report is the statement that the Pumps will be turned on as soon as water levels "are **predicted** to exceed 87 feet." Main Report ¶ 179 at 86 (emphasis added). The Main Report and Appendix 6 of the Draft SEIS also state that at least some of the 12 individual pumps that comprise the Yazoo Pumps project may be turned on **before** the water levels reach 87 feet. Main Report ¶ 214 at 100-01; Draft SEIS Engineering Appendix 6 ¶55 at 6-39.

Moreover, as EPA's comments and analysis make clear, the Pumps will in fact drain lands well below even the unauthorized 87 foot elevation. EPA Comments on the Draft SEIS.

Significantly, the Draft SEIS seriously evaluates **only** those alternatives that unquestionably exceed the scope of the authorized project. Those alternatives call for operating the pumps -- and thus draining lands -- at levels well below 90 feet. For example, the Corps' National Economic Development ("NED") plan calls for pumping flood waters from all lands above the 80 foot level during the cropping season (1 March to 1 December), and pumping flood waters from all lands above the 85 foot level during the rest of the year.

By draining lands below 90 feet, this unauthorized project will cause significantly more ecological harm than the Congressionally authorized project. The unauthorized draining of lands below 90 feet also significantly distorts the Corps' economic analysis.

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changes had occurred as a result of improvements to the channel efficiency in the Mississippi River, and as a result of reservoirs and channel improvements in the Yazoo Basin headwater area. U.S. Army Corps of Engineers, Vicksburg District, Mississippi River and Tributaries Comprehensive Review Report, Annex L, Yazoo Backwater Project Mississippi at 20 (November 1959).

[19] The Corps has not suggested that it is necessary to operate the Pumps at 87 feet to maintain the sump elevation at 90 feet. For example, the Corps' hydrologists have advised the U.S. Fish and Wildlife Service that operation of the Pumps at the 88.5 foot elevation will maintain a two-year frequency wetlands event at 88.6 feet. Letter from Charles K. Baxter, Yazoo Backwater Team Leader, U.S. Fish and Wildlife Service to Douglas J. Kaimen, Planning, Programs, and Project Management Division, Vicksburg District, U.S. Army Corps of Engineers at 3 (December 15, 1999).

For example, in its cost-benefit analysis, the Corps has claimed benefits for the unauthorized draining of lands below 90 feet. As discussed below, such benefits could more than double the total agricultural benefits of an authorized project.

The Corps was advised that it was not complying with the authorizing legislation for flood protection in the Yazoo Backwater Area in a March 20, 2000 letter to Secretary of the Army Louis Caldera (and copied to, among others, Joseph W. Westphal, Assistant Secretary of the Army for Civil Works) from Earthjustice Legal Defense Fund. A copy of that letter is attached at Tab C. The Corps has not addressed its lack of authorization in any way in the Draft SEIS or Main Report, and has not otherwise substantively responded to the issues raised in that March 20 letter. To our knowledge, the Corps has not advised the Office of the Assistant Secretary, EPA, Fish and Wildlife, the Office of Management and Budget, the Council on Environmental Quality, or the public that new Congressional authorization is required.

The Corps also has not prepared a post authorization change report as required by the Corps' engineering regulations. ER 1105-2-100, Appendix G, Section III.

It is critical that the Corps pay close attention to the legal limits under which it is required to operate. Unfortunately, it appears that the Corps has not done so for this project.

5. The Yazoo Pumps Are Not Economically Justified

An independent and extensive economic review of the Yazoo Pumps clearly demonstrates that the Pumps are not economically justified, and that there are no circumstances under which the they could become economically justified.[20] As a result, the Corps may not build the Yazoo Pumps.

The Shabman Study concludes that even if the Pumps guaranteed that it would **never** again flood anywhere within the 1 to 100-year floodplain in the Backwater Area -- a level of flood protection that the Pumps clearly do not, and cannot, provide -- the Pumps still could not generate more than $25.6 million (net present value) in agricultural flood reduction benefits. Shabman Review Comments and Shabman Study at 89. This is "**far below what would be necessary to NED justify such a project, even accepting**

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[20] Leonard Shabman & Laura Zepp, An Approach for Evaluating Nonstructural Actions with Application to the Yazoo River (Mississippi) Backwater Area (February 7, 2000) (prepared in cooperation with the U.S. Environmental Protection Agency, Region 4) (the "Shabman Study"). Dr. Shabman and Ms. Zepp also reviewed and analyzed the economic analysis contained in the Draft SEIS. Shabman and Zepp Review Comments on "Yazoo Backwater Reformulation" dated September 24, 2000 ("Shabman Review Comments"). Both the Shabman Study and the Shabman Review Comments are included with the EPA Comments on the Draft SEIS.

all of the other benefit claims and the reported costs presented in the EIS." Shabman Review Comments (emphasis in original).

Because the Yazoo Pumps clearly will not stop all flooding in the Backwater Area, any agricultural benefits actually obtained from the Yazoo Pumps would be far less than $25.6 million. As importantly, of the $25.6 million in agricultural benefits that could be achieved by eliminating all flooding in the Yazoo Backwater area, $14.1 million are attributable to the elimination of all flooding within the 2-year floodplain (*i.e.*, by draining lands below the 91 foot elevation).[21] Shabman Study at 89, 104. As discussed above, however, the Corps is not authorized to drain lands below the 90 foot elevation. Thus, constructing and operating a pumping plant that complies with the Corps' existing authorization could provide little more than $11.5 million (net present value) in agricultural benefits.

The Shabman Study and Shabman Review Comments document a host of significant analytical flaws in the Corps' economic analysis. **Perhaps most egregiously, Dr. Shabman has concluded that the Corps' economic analysis overestimates agricultural benefits by $144 million.**

The Shabman Study shows that the Corps reached its vastly erroneous conclusion on agricultural benefits by utilizing grossly inflated agricultural return rates. For example, the Shabman Study shows that the Corps has substantially inflated the flood-free cotton return rates by comparing the capitalized value of those net returns to actual land prices.[22] *Id*. at 84. If the Corps' cotton return rates were correct, cotton land in the project area would have to sell today for more than $5,000 per acre. *Id*. at 88-89. The highest reported price for cotton land in the project area, however, is only $1,300 per acre.[23] *Id*. at 89. The Shabman Study concludes that these return rates "simply cannot be reconciled with land market prices," and "greatly exceed" the actual rates of returns. *Id*. at 88.

The Corps is overestimating the benefits of the Yazoo Pumps in other ways as well. For example:

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[21] The total net present value of all agriculture benefits that could accrue by eliminating all flooding within the 3 to 100-year floodplain is $11.5 million. *Id*. at 104.

[22] By overestimating the flood-free net returns, "the Corps' calculations of flood damages begin with a higher potential income loss from flooding and so would yield greater flood reduction benefits." Shabman Study at 84.

[23] The Shabman Study relies on Federal Land Bank Prices reported in Black, Unsworth and Ott (1997) in this analysis. Shabman Study at 89.

(a) The Corps is overestimating the potential agricultural benefits by claiming benefits for the unauthorized draining of lands below the 90 foot elevation (see discussion above).

(b) The Corps is overestimating the potential agricultural benefits by basing its benefits analysis on a discredited projection of land use in the project area. The agricultural benefits provided by the Yazoo Pumps are determined by comparing the agricultural returns that would be expected if the Pumps are built, to those that would be expected if the Pumps are not built. As a result, if the Corps overestimates the amount of land in the project area that will remain in agricultural production if the Pumps are not built, it also will overestimate the potential agricultural benefits. This is precisely what the Corps has done.

The Corps' economic analysis is based on the assumption that land use in the project area will not change if the Pumps are not built. Fish and Wildlife, however, has advised the Corps that this baseline assumption is entirely incorrect.[24] A detailed analysis conducted by Fish and Wildlife projects that land use in the project area will in fact change significantly over the 50 year project life. If the Pumps are not built, Fish and Wildlife projects that over 43,400 acres of cleared agricultural lands in the project area will be restored to wetlands, with 83 percent of that restoration taking place within the 2-year floodplain.[25] Overall, more than 86 percent of the 2-year floodplain will be restored to forested wetlands, with an additional 13,100 acres restored to wetlands elsewhere in the project area if the Pumps are not built.[26] Though the Corps included this information in the Draft SEIS, it nevertheless bases its economic analysis on its erroneous assumption of no change in land use in the project area. By claiming agricultural benefits for draining lands that would be taken out of agricultural production if the Pumps were not built, the Corps is overstating the potential agricultural benefits of the project.

(c) The Corps is overestimating the potential agricultural benefits by claiming agricultural crop benefits from the nonstructural conservation easement component of the Yazoo Pumps. The Corps is claiming $2.96 million in annual benefits for these easements based on alleged reductions in insurable flood losses. Main Report Table 15 at 88. As the Shabman Review Comments point out, however, the *Principles and Guidelines* prohibit the Corps from claiming these benefits. Moreover, as discussed

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[24] U.S. Fish and Wildlife Service, Fish and Wildlife Coordination Act Planning-Aid Report on the Yazoo Backwater Area Project at 1 (September 1999) ("Fish and Wildlife Planning Aid Report").

[25] Fish and Wildlife Planning Aid Report at 12. This "ongoing restoration reflects a realignment of land use and land capability that will continue into the future, absent major hydrologic and hydraulic interventions." *Id*. at 14.

[26] *Id*. at 13.

above, the nonstructural conservation easement component of the Yazoo Pumps project is completely illusory. In addition, no benefits can be claimed for the 17,028 acres of these conservation easements that are actually being used to satisfy mitigation requirements, because mitigation only ensures no net loss to the environment. *See* Draft SEIS, Appendix 1 Mitigation ¶ 91 at 1-42.

The Shabman Review Comments conclude that by improperly counting benefits for these easements, the Draft SEIS clearly overstates the annual benefits of the recommended plan by $2.96 million. Eliminating just these benefits immediately reduces the cost benefit ration to 1.24 (and the Corps' estimates of project benefits will exceed project costs by only $3.66 million).

The Corps also is underestimating the costs of the Yazoo Pumps in a number of significant ways. For example:

(a) The Corps appears to be severely underestimating the costs of constructing the Yazoo Pumps. Despite significant price level increases since 1982 (as documented in the Corps' Civil Works Construction Cost Index), the Corps contends that: the structural first costs for the Pumps are less than the structural first costs projected for this project in 1982; the annual costs are less than those projected in 1982; and the operations and maintenance costs are less than those projected in 1982. Main Report ¶¶ 197, 198 at 93-94. The reader is also referred to the critique of costs in the March 20, 2000 letter to Secretary of the Army Louis Caldera, which is attached to these comments at Tab C.

(b) The Corps has not included the costs of mitigation in its economic analysis. In light of the ecosystem-wide impacts that will be caused by the Pumps, the cost of mitigation to compensate for those impacts would be substantial. As is discussed above, compensatory mitigation for the Yazoo Pumps is required by law and policy. Accordingly, mitigation costs must be included as costs of the project.

In short, the Corps' economic analysis contains significant analytical flaws, and cannot be relied on to justify this project.[27] The Yazoo Pumps are not economically justified, and must not be built.

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[27] This is not the first time that an economic analysis conducted by the Corps' Vicksburg District has been severely criticized and shown to be strongly biased towards justifying a project that undeniably would "grow" the Corps' civil works program. In 1997, the U.S. Fish and Wildlife Service had such overwhelming concerns with the economic methodology used by the Vicksburg District to analyze the relative costs of purchasing flowage easements for the Big Sunflower River Maintenance Project that it undertook its own economic analysis of those costs. That economic study shows that the Corps significantly overestimated the costs of utilizing nonstructural alternatives to meet the objectives of the Big Sunflower project. U.S. Fish and Wildlife Service, Considerations in the Pricing of Flowage Easements: A Case Study of Non-Structural Flood Control in the Big Sunflower River Basin (October 1997). Fish and Wildlife's economic analysis of the Big Sunflower River Maintenance Project compels a

6. The Draft SEIS Is Fundamentally And Fatally Flawed

The Draft SEIS is fundamentally and fatally flawed. In addition to each of the points raised in the previous sections of these comments, the Draft SEIS contains numerous other critical and fundamental deficiencies.

Among other things, the Draft SEIS bases its entire impacts analysis on a fundamentally flawed hydrologic assessment that severely underestimates the impacts of the project; contains a fatally flawed mitigation analysis; ignores the cumulative losses of wetlands in the region; fails to evaluate the impacts on two entire classes of animals, amphibians and reptiles; fails to adequately evaluate a wholly nonstructural alternative; omits critical supporting documentation and data; and is rife with inconsistencies and errors. It also appears that the Corps is not considering public comment in a manner consistent with the requirements of NEPA.

For all of these reasons, the Draft SEIS does not provide either a basis for making a reasoned choice among alternatives, or a full and objective assessment of the environmental impacts of the project, both as required by NEPA.

(a) The Corps Has Based Its Entire Analysis On A Fundamentally Flawed And Scientifically Inappropriate Hydrologic Analysis

The hydrologic analysis in the Draft SEIS forms the foundation for all other analyses in the Draft SEIS, including its analysis of wetlands impacts, mitigation, fisheries, waterfowl, endangered and threatened species, and economic costs and benefits. As is set forth in detail in the comments on the Draft SEIS submitted by EPA and the National Wildlife Federation, the Corps' hydrologic analysis is fundamentally flawed.

Both EPA and National Wildlife Federation's hydrology expert conclude that the hydrologic models used by the Corps are not scientifically appropriate for use with this project. Those models are far too simplistic and coarse to evaluate the impacts of the Yazoo Pumps on the complex hydrology of the project area. For example, EPA points out that the Corps' hydrologic model does not include basin wide channel cross-section information that is critical for accurately predicting flood profiles.

Both EPA and National Wildlife Federation's hydrology expert also conclude that the data used by the Corps to run its simplistic and inappropriate models also is extremely limited and coarse. For example, EPA points out that the Corps appears to have used

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reevaluation of the Corps' decision to dredge the Big Sunflower River (at undeniably devastating environmental cost), just as Dr. Shabman's economic analysis mandates a reevaluation of the Yazoo Pumps.

data points from just 10 satellite images to generate the elevation area curves that form the basis for all other hydrologic analyses in the Draft SEIS. And, despite the importance of those curves, the Corps has not provided either the data points or the model used to fit the curve to those data points.

Both EPA and National Wildlife Federation's hydrology expert conclude that the Corps' stage-frequency analysis also is fundamentally flawed. That analysis, summarized in Table 14 of the Main Report (at page 85), is completely unsubstantiated. It also is subject to a high degree of error because that analysis is itself based on two highly questionable analytic analyses; it is not based on any measured date. In short, there is absolutely no data or analysis of any kind in the Draft SEIS to support the stage-frequency analysis that forms the basis of all the Corps' claims of flood reduction benefits.

It is clear from the EPA and National Wildlife Federation comments that the Corps' Draft SEIS is more akin to a house of cards than to the valid and objective environmental impact statement required by NEPA. If even one component of the Corps' numerous models is incorrect, if even one assumption underlying those models is wrong, if even one of the ten data points is inaccurate or an aberration -- and the experts have pointed out many such examples -- then, just like a house of cards when the bottom card is removed, the Corps' entire analysis of flood protection benefits, economic benefits, and environmental impacts also must fall.

For example, the Corps concludes that the Yazoo Pumps will not alter the hydrology of the one year floodplain (*i.e.*, those lands below 87 feet), even though the Yazoo Pumps will be turned on when the water levels are at or below 87 feet. On the basis of its conclusion of no hydrologic harm to the 1 year floodplain, the Corps also concludes that the Pumps will not cause any harm whatsoever to wetlands within the 1 year floodplain. From that the Corps concludes that the Pumps will not cause any impacts to fish and wildlife in the 1 year floodplain.

However, as EPA has demonstrated, these conclusions, all of which are based on the Corps' faulty hydrology analysis, are incorrect. EPA has determined that the Yazoo Pumps will alter the hydrology of the entire one year floodplain, and thus will impact all of the wetlands located below 87 feet. As dramatically, the Corps' hydrologic model has caused it to conclude that "only" 23,200 acres of wetlands will be affected by the Pumps, while EPA makes clear that over 200,000 acres of wetlands will be drained and damaged.

Because the Corps' models are fundamentally inappropriate for the project, they cannot form the basis of a valid and objective impacts analysis. Should the Corps persist in its plans to proceed with this project it should reevaluate the impacts of the Yazoo Pumps using a legitimate foundation for its analysis.

(b) The Corps' Wetlands Impacts Analysis Is Fundamentally Flawed

The Corps' severe underestimation of wetland impacts caused by its flawed hydrologic analysis, is compounded by additional problems with the Corps' wetlands impacts analysis. For example, the Corps has limited its evaluation of wetland impacts to wetlands located between the 87 foot elevation (below which it claims there will be no hydrologic harm) and the 88.5 foot elevation, which the Corps claims is the "maximum elevation at which backwater flooding influences the jurisdictional delineation of wetlands in the study area." See Draft SEIS ¶ 113 at SEIS-53. Though it has not documented the underlying assumptions, the Corps has thus limited the scope of its impacts analysis to those wetlands located above the 1 year floodplain and below the 2 year floodplain.

This limitation is wholly unfounded. First, as EPA concludes, all wetlands below the 87 foot elevation will be impacted by the Pumps. Second, wetlands clearly exist above the 88.5 foot elevation. Third, there is no basis for limiting the impacts analysis to wetlands influenced by backwater flooding since the very purpose of the project is to reduce headwater flooding (not backwater) flooding. Fourth, the Corps is clearly asserting that the Pumps will drain water from, and thus will drain wetlands in, the entire 100 year floodplain. The Corps must analyze the impacts of this project on all the area's wetlands.

In addition, the Corps has used a wetlands impacts assessment methodology that EPA has determined is both "flawed and incomplete."[28] That methodology is scientifically indefensible because there is no data to support the assumptions upon which it is based, no data to support acreage impacts or impacts to wetland functional values, and no data or information upon which to evaluate the Corps' mitigation proposals.[29] As importantly, because that methodology is not designed to assess impacts to wetlands caused by hydrologic change -- the principal impact caused by operation of the Pumps -- it is not appropriate for evaluating the impacts of the project.[30]

Other problems with the Corps' wetlands impacts analysis abound, and are documented in detail in the EPA Comments on the Draft SEIS. As EPA long ago advised the Corps, the magnitude of the anticipated wetland impacts from the Yazoo Pumps and the extensive cumulative losses of wetlands in the Yazoo Basin mandate use

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[28] Letter from Tom Welborn, Chief, Wetlands, Coastal and Nonpoint Source Branch, Region 4, U.S. Environmental Protection Agency to John Meador, U.S. Army Corps of Engineers at 4 (October 12, 1999). A copy of this letter is included with the EPA Comments on the Draft SEIS.

[29] *Id*. at 1-4.

[30] *Id*. at 1-2.

of the "utmost care and scientific rigor" to assess impacts and to plan for, and implement, compensatory mitigation.[31] Unfortunately, the Corps did not heed that counsel.

Instead, the Corps persisted in using a methodology that was guaranteed to underestimate, and that in fact did underestimate, the impacts of the Yazoo Pumps on the region's wetlands. As a result, the Corps also has severely underestimated the amount of needed mitigation. This is borne out by the Corps' claim that only 12,980 acres of reforestation of frequently flooded agricultural land (with no hydrological modification) would be necessary to compensate for the hydrologic impacts of the Pumps, when EPA's analysis shows that the Yazoo Pumps will drain and damage over 200,000 acres of wetlands. *See* Main Report ¶ 192 at 91.

The wetlands impacts analysis in the Draft SEIS is wholly inaccurate, and does not satisfy the mandates of NEPA. Without an accurate understanding of the impacts of the Yazoo Pumps, the Corps cannot make a reasoned decision as to whether or not the project should proceed. Without an accurate understanding of the impacts of the Yazoo Pumps, the Corps also cannot properly analyze whether mitigation can in fact offset those impacts, how much mitigation would be required to do so, or what kind of mitigation would be required.

(c) The Corps' Mitigation Analysis Is Wholly Inadequate

In direct violation of law and policy, compensatory mitigation is **not** a part of the Corps' recommended plan for the Yazoo Pumps. *E.g.*, Main Report ¶ 191 at 91; Draft SEIS ¶¶ 82 at SEIS-39 and ¶ 84 at SEIS-40.

As discussed above, the Corps claims that compensatory mitigation is not necessary due to its plan to purchase conservation easements on those none-existent 62,500 acres of available agricultural land located within the project area and below 87 feet. According to the Corps, those conservation easements will result in environmental benefits that will completely obviate the need for any compensatory mitigation, and that will produce $2.96 million in annual benefits. Draft SEIS Table 6 at SEIS-36. The wholly illusory nature of these claims is discussed in detail in Section 1(b) of these comments.

Even though it expressly states that compensatory mitigation is not part of the recommended plan, the Corps nevertheless claims that it has calculated what would be the necessary mitigation. According to the Corps, a total of 17,028 acres of reforestation of frequently flooded agricultural land will fully compensate for the impacts of this

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[31] *Id*. at 4.

project (12,980 acres to compensate for hydrologic changes, and 4,048 to compensate for past project impacts and direct impacts). Main Report ¶ 195 at 92.

Recognizing at least the need for this completely unsatisfactory amount of mitigation, the Corps has asserted that the first 17,028 acres of conservation easements will be counted towards mitigating the impacts of the Yazoo Pumps.[32] If the Corps does not purchase at least 17,028 acres of conservation easements before it stops its conservation easement purchase efforts, the Draft SEIS says that the Corps will revert to a compensatory mitigation program that will have a goal of obtaining up to a total of 17,028 acres for mitigation purposes.

The Corps' mitigation analysis is wholly inadequate. The very purpose of the mitigation analysis under NEPA is to "discuss the extent to which adverse effects can be avoided" by mitigation measures. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989). Essential to such a discussion, is a recognition of the actual ability of mitigation to compensate for the environmental harms caused by a project. A mitigation analysis that assumes that mitigation will in fact work when all evidence is to the contrary does not satisfy NEPA.

The Corps' mitigation analysis is fundamentally flawed because it does not honestly evaluate the inherent difficulties and uncertainties associated with mitigation, let alone those associated with mitigation on the scale that would be necessary for the Yazoo Pumps. A fundamental change in the Corps' approach to mitigation will be necessary before the Corps can hope to prepare a meaningful and objective mitigation analysis.

First and foremost, the Corps must recognize that it is impossible, under the Corps' current mitigation practices, to compensate either for the ecosystem-wide devastation that this project will cause, or for the 200,000 acres of wetlands that will be drained and damaged. The Corps has not even calculated (let alone proposed) any mitigation whatsoever for the ecosystem-wide hydrologic changes that this project will cause. And, the calculated mitigation for wetlands impacts is utterly inadequate to compensate for 200,000 acres of wetland impacts. Critically, it is virtually inconceivable that any amount of proposed mitigation could compensate for impacts on the scale of those that will be caused by the Yazoo Pumps. As a result, the Corps must not proceed with this project.

Second, the Corps must recognize that wetlands mitigation is extremely difficult and often fails. As a consequence, impacts that can be avoided should be, even if that

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[32] As a result, the Corps cannot properly claim any additive environmental benefits from the first 17,028 acres of conservation easements. The Corps likewise cannot properly claim any monetary benefits for any of these 17,028 acres.

requires the Corps to say no to a project. Mitigation should not be viewed as a panacea that makes all project impacts "disappear."

The scientific literature clearly and undeniably demonstrates that wetlands mitigation is extremely difficult and often fails. Copies of the studies cited below are attached at Tab D. For example, a 1996 study published in *Ecological Applications* concludes that "[b]ased on over a decade of survey results, the cumulative record of past mitigation projects remains undeniably poor overall, with disappointingly few examples of success."[33] The "sober reality [is] that under present mitigation policies and practices 'losses are likely to be uncompensated for and that what we call mitigation has a high chance of failure.'"[34]

The National Research Council has concluded that:

> Attempts to restore forested wetlands of the Southeast (e.g., bottomland hardwoods and cypress swamps) have encountered difficulties related to the time required to replace mature trees, the lack of material to transplant, the lack of knowledge of how and when to carry out seeding or transplantation, (Clewell and Lea, 1989) and altered hydrology (drainage for conversion to agriculture) of the wetland area.[35]

Even the Corps' top policymakers recognize -- and have testified to Congress -- that the success of wetlands mitigation is questionable at best. According to Michael L. Davis, Deputy Assistant Secretary of the Army for Civil Works, (and Robert H. Wayland, Director of the Office of Wetlands, Oceans and Watersheds, U.S. Environmental Protection Agency):

> Many mitigation projects have, in fact, failed due to one or more of the following reasons: poor siting and project design; inadequate monitoring programs; lack of adequate maintenance or remedial activities; and in some cases, failure of permittees to comply with the conditions of their permits.[36]

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[33] Margaret S. Race and Mark S. Fonesca, *Fixing Compensatory Mitigation: What Will It Take*, Ecological Applications (1996) pp. 94-101 at 97.

[34] *Id*.

[35] National Research Council, *Restoration of Aquatic Ecosystems*, (National Academy Press 1992) at 311.

[36] Complete Joint Statement of Michael L. Davis, Deputy Assistant Secretary of the Army for Civil Works and Robert H. Wayland III, Director, Office of Wetlands, Oceans and Watersheds, Environmental Protection Agency, Before the Transportation and Infrastructure Committee, Subcommittee on Water

Scientific studies also demonstrate that there is a wholesale lack of data regarding the ability to fully restore the lost functional values of a complex bottomland hardwood wetland through mitigation. For example, the National Research Council has concluded that: "[t]he short time period within which forest restoration attempts have been monitored precludes an evaluation of their functional equivalency with natural reference systems."[37] As a result, "mitigation efforts cannot yet claim to have duplicated lost wetland functional values."[38] A 1996 study concludes that "there are few satisfactory methods for assessing replacement of the functions lost with the original wetland."[39] Moreover, when monitoring to assess the success of mitigation is based on a relatively simple set of criteria, those criteria may or may not accurately reflect wetland function.[40]

Contrary to the Corps' suggestion that it has a mitigation monitoring program up and running in the project area, no monitoring data has yet been generated from that program. Response To Freedom of Information Act Request submitted by Earthjustice Legal Defense Fund for the Monitoring Program and Results Identified in ¶ 223 of the Main Report at 111.

Third, the Corps must recognize that planting tree seedlings or seeds on frequently flooded farmlands is not wetlands mitigation. To mitigate for a lost wetland, the Corps must create, restore, or enhance a wetland. This is particularly true where, as here, the Corps bases its wetlands mitigation acreage figure on lost wetland functions and values. Planting tree seedlings on frequently flooded farmland does not guarantee the replacement of all lost wetland functions and values. These functions include short-term water storage, long-term water storage, water velocity reduction, sediment detention, onsite erosion control, nutrient and dissolved substance removal, and organic carbon export.

Fully compensating for such lost values requires far more than attempts to plant trees. Hydrological modification, in particular, is a critical component of successful

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Resources and Environment, United States House of Representatives, Wetlands Protection and Mitigation Banking, December 9, 1997.

[37] *Restoration of Aquatic Ecosystems* at 311-312.

[38] *Fixing Compensatory Mitigation: What Will It Take* at 95 (summarizing findings in *Restoration of Aquatic Ecosystems).*

[39] William J. Mitsch and Renee F. Wilson, *Improving the Success of Wetland Creation and Restoration With Know-How, Time, and Self-Design*, Ecological Applications (1996) pp. 77-83 at 77.

[40] *Id*.

wetlands restoration efforts. As the National Research Council has concluded, correct hydrology and species diversity are critical elements in restoring wetlands:

> Natural forested wetlands may support hundreds of plant species, many of which thrive in the understory (91 percent of 409 species in one riverine forest were understory species). Old-growth forests are dominated by trees that gradually achieve a dominant role in the canopy and that are self-sustaining through their ability to reproduce in their own shade. It is not clear that such climax species can be successfully established in open sites, or whether their introduction must await development of seral (intermediate successional stage) plant communities. . . . In many cases, restoration of suitable hydrologic conditions will be necessary.[41]

Fourth, the Corps must recognize that wetlands mitigation requires long term monitoring to ensure that the mitigation is ecologically successful, and is in fact replacing the wetland functions and values lost as a result of a project. Monitoring to ensure tree seedling survival is not sufficient to ensure ecological success. The Corps is must require meaningful monitoring of all mitigation it commits to in a Record of Decision, as required by law. 40 C.F.R. §§ 1505.2, 1505.3; 33 C.F.R. § 230.15.

Fifth, the Corps must recognize that its existing substantial backlog of mitigation is strong evidence that the Corps will have difficulty in carrying out additional mitigation responsibilities. By its own admission, as of June 24, 1999, the Corps' Vicksburg District was legally obligated to implement compensatory mitigation on well over 25,000 acres that had yet to be purchased.[42] This backlog did not include the mitigation that would be required in the Vicksburg District for the Mississippi River Mainline Levee Project, which includes the purchase and reforestation of an additional 5,200 acres of frequently flooded agricultural lands. The Corps should not approve projects requiring additional mitigation until it fully implements its existing mitigation backlog.

Sixth, the Corps must recognize that it has not proposed anything even close to an acceptable amount of mitigation for this project. At an absolute minimum, the Corps should be required to implement one acre of mitigation for each acre of wetlands impacted. Only in that way can the Corps have any hope of meeting its statutorily established "interim goal of no overall net loss of the Nation's remaining wetlands base, as defined by acreage and function." 33 U.S.C. § 2317(a)(1). Acreage calculations for all components of the mitigation requirements are flawed, and not properly justified.

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[41] *Restoration of Aquatic Ecosystems* at 311.

[42] Letter and Attachments from Joseph W. Westphal, Assistant Secretary of the Army (Civil Works) to Melissa A. Samet, Attorney, Earthjustice Legal Defense Fund (August 9, 1999).

Moreover, by so severely underestimating the hydrologic impacts of the project, the Corps has certainly underestimated the impacts to fisheries from the Yazoo Pumps. An accurate analysis of fisheries impacts almost certainly will result in significantly higher mitigation requirements than have been proposed. The same holds true for accurate assessments of wetlands impacts, water quality impacts, wildlife impacts, and cumulative impacts.

Seventh, the Corps must recognize that there are significant differences between a meaningful compensatory mitigation plan and the Corps' conservation easement program. As a result, no portion of conservation easement lands should be counted towards compensatory mitigation. For example, as discussed above, planting tree seedlings on frequently flooded agricultural lands does not create wetlands, and the conservation easements will not require landowners to modify the hydrology of their lands to help ensure the existence of wetland hydrology. Trees planted pursuant to the conservation easements can be harvested via normal silvicultural practices, including clear cutting, but no harvesting of mitigation lands is allowed. In addition, there is to be no monitoring of individual conservation easements to ensure that they are in fact providing the environmental benefits claimed by the Corps, or even that the terms of the conservation easements are being complied with. But monitoring to ensure mitigation success is required by law.

(d) The Corps' Threatened And Endangered Species Analysis Is Inadequate And The Corps Must Formally Consult With Fish And Wildlife On The Pondberry Before It May Proceed Any Further With This Project

The Fish and Wildlife Service disagrees with the Corps' conclusion that the recommend Yazoo Pumps plan is not likely to adversely affect pondberry, a federally listed endangered plant species. Fish and Wildlife has concluded that the magnitude of the hydrologic impacts of the Yazoo Pumps is likely to adversely affect the pondberry. As a result, Fish and Wildlife has recommended that the Corps initiate formal consultation to ensure that the project will not likely jeopardize the continued existence of the pondberry, as required by Setion 7(a)(2) of the Federal Endangered Species Act. Fish and Wildlife Comments on the Draft SEIS.

The Corps must not proceed with this project until it has completed this formal consultation and taken the results of that consultation into account in determining whether or how to proceed.

(e) The Corps Has Abjectly Ignored The Cumulative Losses Of Wetlands And The Cumulative Impacts Of Significant Hydrologic Alterations In The Project Area

Though the Draft SEIS includes a nominal cumulative impacts discussion, that discussion most definitely does not satisfy NEPA.

As discussed above, the Corps has spent $2.4 billion (in historical dollars) on structural flood control projects just within the Yazoo Basin. The projects built with these monies include: the Yazoo Area and Satartia Area Levees, the original Big Sunflower River project, the 28 mile connecting channel between the Little Sunflower River and Steele Bayou, the 65 mile Will Whittington Canal Auxiliary Channel and Levees, the 6 mile connecting channel between the Big Sunflower River and the Little Sunflower River, the Steele Bayou Control Structure, the Muddy Bayou Control Structure, and the Little Sunflower River floodgate. In addition, the Corps has built the Mississippi River Mainline Levees, which also have significantly altered the hydrology of the project area.

These projects have had enormous impacts on the hydrology, wetlands, fish, and wildlife in the project area. The Corps also is currently building projects that are causing, and will continue to cause additional significant adverse impacts on these same resources. These include the Mississippi River Mainline Levee Enlargement Project, the Big Sunflower River Maintenance Project, and the Upper Steele Bayou Project.

Though the Draft SEIS mentions some of these projects by name, it does little else in its cumulative impacts discussion. The Corps also did not discuss at all the cumulative impacts of such activities as private levee building in the project area, or the cumulative impacts of Clean Water Act Section 404 permits issued in the area. In response to a Freedom of Information Act request submitted by Earthjustice Legal Defense Fund, the Corps acknowledged that it has permitted at least 1,069 acres of wetland impacts in the project area in just the last 5 years. These wetland losses, and the likely future losses from granting additional permit requests must be evaluated. A copy of the documents evidencing these Section 404 permitted activities is attached at Tab E.

Despite these many significant activities in the project area, the Draft SEIS nevertheless concludes that:

> The incremental impact of the proposed action, when added to former, present, and foreseeable future actions, results in a net gain in nationally significant habitat and environmental values in the study area. . . . The recommend plan provides a net increase in terrestrial, wetland, and aquatic resource values such that no significant cumulative adverse environmental

> impact results on an ecosystem, landscape or regional scale when the proposed action is considered in conjunction with other activities.

Draft SEIS ¶ 190 at SEIS-86. The Corps could only reach this conclusion by completely ignoring all of the impacts of each of the past, present, and reasonably foreseeable future actions that have or will impact the project area, and by wholly ignoring the devastating ecosystem-wide impacts of the Yazoo Pumps themselves. This is abjectly unacceptable under NEPA.

(f) The Corps Has Not Evaluated The Human Health, Economic, And Social Impacts Of Increased Pesticide Use On Minority And Low Income Communities In The Project Area As Required By The Executive Order On Environmental Justice

The 1994 Executive Order on Environmental Justice (Executive Order 12898) requires the Corps to analyze the human health, economic and social effects of the Pumps, including the effects on minority communities and low-income communities, in order to help achieve the goal of environmental justice and to promote nondiscrimination in federal programs substantially affecting human health and the environment.

The Mississippi Delta (including the project area) is subject to pervasive use of agricultural chemicals, particularly pesticides. This persistent use of agriculture chemicals has caused significant impairment of local waterbodies. Of the river miles assessed in the Yazoo Basin, 78% are contaminated by pesticides, and 83% are contaminated by nutrients. Additionally, concentrations of DDT and toxaphene persist in the Delta at levels considerably higher than those found elsewhere in the nation.

The Mississippi Delta also suffers high rates of poverty, and many low-income and minority residents of the Delta rely on fish caught from local waterbodies contaminated by agricultural chemicals to supplement their diets. As a result, any increase in the use of these chemicals disproportionately impacts these populations.

As previously discussed, the Yazoo Pumps are specifically designed to drain wetlands so that landowners can increase agricultural production on marginal lands that have always flooded. Increased agricultural use, whether through an extended cropping season or an increase in cropped acreage, will result in an increase in the use of agricultural chemicals. This in turn, may create disproportionate impacts on low-income and minority communities throughout the project area.

The Corps must evaluate the potential for disproportionate impacts on minority and low-income residents before it may decide whether or how to proceed with this project.

(g) The Corps Has Not Adequately Evaluated The Impacts On Aquatic Species And Has Failed Entirely To Evaluate The Impacts On Two Entire Classes Of Animals, Amphibians And Reptiles

Because the Corps' hydrologic and wetlands impacts analyses are fundamentally flawed, it cannot properly have evaluated the impacts of the project on fisheries. Fish and Wildlife also has pointed out other analytical problems with the Corps' fisheries impacts analysis. The Corps must properly evaluate these impacts before it may proceed with the project.

There is no analysis whatsoever of the impacts of this project on amphibians (frogs, toads, newts), and reptiles (snakes, turtles). Wetlands are extremely important to these species, and many endangered and threatened amphibian and reptile species are especially linked to wetlands.[43] The Corps must evaluate the impacts of the Yazoo Pumps on amphibians and reptiles before deciding whether or how to proceed with this project.

(h) The Corps Has Not Adequately Evaluated The Impacts On Water Quality

The Water Quality analysis does not evaluate the impacts on water quality that will arise from the significant wetland losses that will be caused by the Pumps. As discussed above, wetlands have well-recognized water purifying functions. The Water Quality analysis also does not evaluate the impacts on water quality from the increased use of pesticides that will result from the project. These impacts must be analyzed before the Corps decides whether or how to proceed with the project.

(i) The Corps' Analyses Of Air And Noise Impacts Are Inadequate

The Corps has provided no analysis of air quality impacts from the Yazoo Pumps. The only mention of these impacts in the Draft SEIS states in its entirety: "The pumps would be powered by diesel engines. There would be periodic emissions at the pump site. The project would not affect long-term air quality." Draft SEIS ¶ 205 at SEIS-91.

This is not an adequate analysis of the potential air quality problems that could be caused by the Yazoo Pumps. According to the Corps, on average, the Pumps will burn 212,000 gallons of diesel fuel over a 31 day period each year. This means that the Pumps will burn 6,839 gallons of diesel fuel each day that they are operating. Main Report ¶ 212 at 100. The potential clearly exists for adverse air quality impacts from burning this

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[43] *E.g.*, *Wetlands* at 517.

amount of diesel fuel, and the Corps must fully evaluate those potential air quality impacts.

The Corps' analysis of noise impacts is similarly truncated. The only mention of noise impacts in Draft SEIS states in its entirety: "Except for agricultural activities and recreational vehicles, the study area is a relatively noise-free rural environment. There would be minimal noise associated with the operation of the pump. There would be no significant change in noise levels in the project area." Draft SEIS ¶ 196 at SEIS-89.

This is not an adequate analysis of the potential noise impacts that could be caused by the Yazoo Pumps. The Pumps will be the world's largest hydraulic pumping plant and will be run on noisy diesel generators. The potential noise impacts are considerable, and the Corps must fully evaluate those potential noise impacts.

(j) The Draft SEIS Fails To Adequately Consider A Wholly Nonstructural Alternative

Despite repeated requests from EPA, Fish and Wildlife, and the environmental and conservation community -- and despite substantial documentation supporting the economic and environmental benefits of such an alternative -- the Draft SEIS does not adequately consider a wholly nonstructural alternative to the Yazoo Pumps. Such an alternative would avoid all of the environmental harm that the Pumps will cause, it would promote the environmental and economic health of the citizens in the project area, and it would bring significant benefits to the fish and wildlife in the region. The Corps must properly evaluate a wholly nonstructural alternative before proceeding with this project.

(k) The Draft SEIS Fails To Contain Critical Supporting Documentation And Data, And Is Rife With Inconsistencies And Errors

Both EPA and Fish and Wildlife have identified a host of critical errors and inconsistencies in the Draft SEIS, and have pointed out where documentation essential to a reasoned evaluation of the Draft SEIS has not been provided. For example, much of the data provided by the Corps is more than ten years old; cost/benefit analyses have been conducted using inconsistent interest rates; and key data is totally missing. The Corps must reevaluate the impacts of the project using proper, timely, and consistent data.

(l) The Corps Is Not Considering Public Comment In A Manner Consistent With The Requirements Of NEPA

During the public comment period ending December 11, 2000, the Corps has been responding to electronically filed comments with a form response that states that a significant amount of false and incorrect information has been provided to the public, and

specifically identifies as false, information provided by EPA. Samples of these responses are attached at Tab F.

By sending this information out during the public comment period, the Corps appears to be attempting to persuade citizens to retract public comments that they properly and validly submitted. It also bodes ill for the Corps seriously considering the comments received. This does not comply with the public comment mandates of NEPA, and is inappropriate behavior for a federal agency.

CONCLUSION

For the reasons set forth above, the Conservation, Taxpayer, and Citizens Groups strongly oppose construction and operation of the Yazoo Pumps, and urge the Corps not to proceed with the project.

Should you require additional information, or have any questions, please do not hesitate to me at 415-627-6700 ext. 209.

Very truly yours,

Melissa A. Samet
Attorney

Attachments

cc:
Joseph W. Westphal, Assistant Secretary of the Army for Civil Works
Michael L. Davis, Deputy Assistant Secretary of the Army for Civil Works
Jack Lew, Director, Office of Management and Budget
Carol M. Browner, Director, U.S. Environmental Protection Agency
W. Michael Mccabe, Deputy Director, U.S. Environmental Protection Agency
Robert H. Wayland, Director, Office of Wetlands, Oceans & Watersheds,
U.S. Environmental Protection Agency
John H. Hankinson, Regional Administrator, U.S. Environmental Protection Agency
Sam Hamilton, Regional Director, U.S. Fish and Wildlife Service
George T. Frampton, Jr., Chairman, Council on Environmental Quality
Bill Leary, Associate Director for Natural Resources, Council on Environmental Quality