

Appendix M

COMMENTS AND RESPONSES

The U.S. Army Corps of Engineers, Memphis District, (Corps) received thirty-eight letters commenting on the Draft Revised Supplemental Environmental Impact Statement. The letters, and Corps responses, are presented in this appendix in the following order:

Federal Agencies and Representatives

1. U.S. Senator Christopher S. Bond
2. Representative Jo Ann Emerson
3. U.S. Department of the Interior
4. U.S. Environmental Protection Agency

State Agencies and Representatives

5. Representative Lanie Black
6. Representative Lanie Black, et al.
7. Representative Peter C. Myers, Sr.,
8. Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Department for Environmental Protection
9. Missouri Department of Conservation
10. State of Missouri Department of Natural Resources

Local Governing Bodies and Agencies

11. City of East Prairie, Enterprise Community
12. Consolidated Drainage District
13. Levee District No. 3, Mississippi County
14. Reorganized School District No. 2
15. St. John Levee and Drainage District

Organizations and Businesses

16. Delouri Farms, Inc.
17. Endangered Species Coalition
18. Environmental Defense Fund
19. French Implement Company, Inc.
20. Mississippi River Basin Alliance
21. Missouri Coalition for the Environment
22. Missouri Farm Bureau Federation
23. Missouri Soybean Association
24. Mount Level Farms Co., Inc.
25. Ozark Chapter Sierra Club
26. St. Louis Audubon Society
27. St. Louis Audubon Society
28. The Enterprise-Courier
29. Webster Groves Nature Study Society

Individuals

30. Ms. Jean Blackwood
31. Mr. Wendell Choate
32. Mr. Troy Gordon
33. Mr. Martin K. Hutcheson
34. Colonel David K. Holland, USA (Ret.)
35. Mr. E. P. "Jack" Moxley, Jr.
36. Mr. Jim Robinson, Jr.
37. Major General J. G. Waggener, USA (Ret.)
38. Mr. Dean White

ST. JOHNS BAYOU & NEW MADRID FLOODWAY
First Phase
November 26, 2001

U.S. Senator Christopher S. "Kit" Bond

Thank you Col. Scherer for the opportunity to have Tom Schulte present testimony on my behalf. I remain committed to working with the Corps, members of the Levee Districts, community leaders and Jo Ann Emerson to ensure that this community finally gets what other communities on the Mississippi River have and that is protection from flooding.

While anyone could be forgiven for losing track, I believe this is the supplemental, supplemental, supplemental draft environmental impact statement. My predecessor, Senator Eagleton, testified before Congress in 1976 that the gap needed closed, and that pumping stations and drainage improvements needed made.

At that time, Senator Eagleton was a junior Senator. My friend Bill Emerson was not yet a member of Congress, Gerald Ford was President and I was completing my first term as Missouri Governor. At that time, "Rocky I" won the Academy Award for best picture. The top-5 pop music list included: " Don't Go Breakin' My Heart" by Elton John & Kiki Dee and "Disco Lady" by Johnny Taylor. Lynn Swann was MVP in Super Bowl 10 when the Pittsburgh Steelers beat Roger Staubach and the Dallas Cowboys; and the price of beans was \$6.81 per bushel.

In 1999, President Clinton flew to the Delta and stated, "that we ought to do something for areas that have still not felt the economic recovery. "At that time, I told him that providing protection from floodwater would be a good place to start.

The goal posts have been moved so many times on this project that we would have to send out a search party to find the stadium. Enough is enough and it is time for the federal agencies to make a decision and stop re-negotiating what has already been re-negotiated. Governing is not just negotiating and holding meetings but deciding.

It is time to recognize that local citizens have bent over backward and have made every attempt to accommodate the real and hypothetical needs of fish and wildlife and it is time that the government make a similar effort to accommodate the real needs of these most patient people.

These people will never have to prove their patience in any other way than to have endured this process. I said to President Clinton that "local citizens have been flooded with more delay and bureaucratic red tape than Mississippi River water."

It is time to recognize that if the objective is to satisfy the Washington Post, local citizens will be swimming for another generation because the Washington Post does not consider anything to be economic development unless it occurs in large metropolitan areas.

The previous Administration paid a lot of lip service to their desire to finalize this administrative action. This is an opportunity for this Administration to put previous words into action and show that they are not just talkers but doers.

I urge in the strongest terms that the Corps bring this matter to resolution and liberate local citizens from flood water and government red tape.

Thank you for the opportunity to testify.

The U.S. Army Corps of Engineers, Memphis District (Corps) appreciates your interest in the project and thanks you for your letter.

ST JOHNS BAYOU &
NEW MADRID FLOODWAY
FIRST PHASE

NOVEMBER 26,2001

Representative Jo Ann Emerson
8th District Missouri

Colonel Scherer and concerned citizens, I am here this evening to add my support to the efforts of my constituents for the St. Johns Bayou - New Madrid Floodway Project.

But first I want to thank the Memphis Corps, the communities of East Prairie, New Madrid, Sikeston, Charleston, and Pinhook for their support and hard work on behalf of this project. I especially want to recognize the leadership of the local sponsors, the St. Johns Levee and Drainage Board, their counsel, Lynn Bock, and those who worked on this effort for the last 50 years. A special thanks to Martha Ellen Black and Kathy Simpkins for their untiring efforts as well.

Over two years ago in this very room, my chief of staff Lloyd Smith spoke on my behalf. Unfortunately tonight's meeting is required because the Corps was directed to do a "supplemental" to the Supplemental Environmental Impact Statement.

As you know, this effort became necessary when the past Administration, on the last day before the transfer of power, mandated yet another study. I thought it was wrong then, and I believe that the delay at best was an attempt to slow the project and at worst an effort to destroy the project all together. Well folks, as long as I am your Representative this project will not be destroyed by bureaucratic efforts in Washington. In fact, my efforts will be to ensure that the construction of this project begins within a year of this date.

Whether you are in Sikeston or Pinhook - Charleston or East Prairie - or St. Louis or Washington D.C., I believe you deserve the right to safe drinking water and the right to be protected from the devastation of floods. I believe that kids riding in stock trailers to school is just as wrong in Mississippi County as any place else in the country. And I believe if a minority seeking to protect its families from flooding is prohibited from doing so that those who fight that flood protection effort are guilty of a very real form of discrimination.

Well, as the Representative of the people, I pledge to fight that discrimination and to fight for this project - and let me tell you why --

This project is good for business, farms, fish and wildlife. It is good for the environment in general. And most importantly, IT IS GOOD FOR THE PEOPLE. Contrary to certain media accounts, this project does not destroy wetlands and does not damage the ecosystem of the area. In fact, just the opposite is true. So, for the record, let me share with you the facts about this project.

FACT 1: The mitigation plan calls for over 9000 acres of cleared land purchased from willing sellers to be re-forested to Bottom Land Hardwoods.

FACT 2: In addition, 700 plus acres of forested wetlands will be offered for protection.

FACT 3: The hydrology plan for Big Oak Tree State Park will be constructed just as the Missouri Department of Natural Resources (MDNR) wanted and the DNR has applauded this as the only way to "save the Park".

FACT 4: Nearly 7000 acres of land will be available for waterfowl habitat almost every year because of the modified operation of the gravity flow gates and pumping stations.

FACT 5: Existing Bottom Land Hardwood stands will not be cleared and farmed because existing law precludes this activity.

FACT 6: Fishery rearing and spawning are fully mitigated and additional features for fishing opportunities in the drainage ditches are provided and enhanced. Additional enhancements in the borrow pit areas could improve fishing even more.

FACT 7: 30,000 acres of wetlands will not be destroyed as has been alleged. This is fully documented in the past SEIS and in this one as well.

FACT 8: With over 10,000 acres of total mitigation, this phase one of the project, in its much

The Corps appreciates your interest in the project and thanks you for your letter.

more narrow scope, has four times the mitigation that Missouri Department of Natural Resources, Missouri Conservation Department, U.S. Fish & Wildlife, and the Environmental Protection Agency agreed to nearly twenty years ago.

FACT 9: Thousands of acres of wildlife habitat will be protected from late season flooding and thus turkey, deer, dove, and swamp rabbit numbers will be enhanced. Maybe that is why everyone from the Wild Turkey Federation to Ducks Unlimited and even the swamp rabbit supporters - support this project.

FACT 10: This project proves that there can be protection for people and property while still being sensitive to the environment.

In closing, let me urge the Corps to move forward with the project leaving the closure in the original design location and not raising the water levels beyond that as outlined in the September 2000 SEIS.

Personally, I pledge to all of you here this evening to fight for the construction funds that have been there in the past and diverted to other projects. I pledge to fight with you at every turn in the weeks and months to come.

Frankly, the time for talk is over, the time for is now. It is clear to me that if you say **NO** to this project you are saying **YES** to discrimination. If you say **NO** to this project you are saying **YES** to the destruction of wild life habitat. If you say **NO** to this project you are saying **YES** to the decline of this area of our state. If you say **NO** to this project you are saying **YES** to poverty and joblessness. By saying **NO** to this flood protection project, you are saying **YES** to spoiled drinking water. And finally, if you say **NO** to this project you are saying **YES** to school kids riding in cattle trailers to get to school busses.

To paraphrase President George W. Bush - you are either with us on this flood protection project or you are against the people who live, work, play and raise their families here in this three county area.

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

February 26, 2002

Colonel Jack V. Scherer
District Engineer, Memphis District
U.S. Army Corps of Engineers
ATTN: CEMVM-PM-E
167 North Main Street, B-202
Memphis, Tennessee 38103-1894

Dear Colonel Scherer:

Thank you for providing the U.S. Department of the Interior with a copy of the Draft Revised Supplemental Environmental Impact Statement for the Mississippi River and Tributaries, St. Johns Bayou and New Madrid Floodway Project, First Phase: Mississippi, New Madrid, and Scott Counties, Missouri. We appreciate the opportunity to review the document and to provide additional information regarding fish and wildlife resources affected by the proposed project. The Department submits the following comments and recommendations for consideration in preparing the Final RSEIS.

The Department continues to have serious concerns regarding the significant environmental impacts associated with this project, and that the Draft RSEIS does not sufficiently disclose or address these impacts. [The Draft RSEIS neither fully addresses the Department's extensive comments on the 1999 SEIS nor does it adequately address the scoping comments and other recommendations provided by the Service.]

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1. The Corps has addressed all significant environmental impacts associated with this project, investing millions of dollars over a fiveyear period toward the analysis of direct and indirect impacts. In addition to Corps subject matter experts, reputable contractors and specialists have been engaged. Findings of analyses have been fully disclosed. The Corps solicited the participation of the U.S. Department of Interior (DOI), the Environmental Protection Agency (EPA), and state resource agencies during every phase of the development of this Revised Supplemental Environmental Impact (RSEIS) and has thoughtfully considered and addressed the extensive input provided. This fact is evidenced by the formulation and recommendation of avoid and minimize measures to:
 - reduce the bottom width of some channel enlargement by 60 percent,
 - change the side of the channel for enlargement to preserve woodlands,
 - include bank stability and lateral transition measures,
 - incorporate 29 artificial structures to improve in-stream fishery habitat,
 - establish up to 64 miles of riparian buffer along floodway channels and a 4-mile long wildlife corridor,
 - increase the crop season stop pump elevation in St. Johns Bayou Basin from 277.0 to 280.0 NGVD retaining more than 1,100 acre-feet of additional fishery habitat during pump operation, increase the crop season stop pump elevation in the New Madrid Floodway from 275.0 to 280.0 NGVD and from 280. to 283.4 NGVD during the prime fish spawning and rearing season, thus retaining more than 1,170 and 11,300 acre-feet of additional fishery habitat during crop season and prime fish spawning and rearing season pump operations, respectively, and
 - increase the elevation at which the Floodway gated structure would be closed and the pump started to 284.4 during the fishery season to increase river connectivity with the project.

Further evidence that the Corps seriously considered input from DOI is clear in the Corps adoption of the DOI acreage for compensatory mitigation and the scientific opinion on which the DOI acreage was based. This Corps adoption resulted in our recommendation of about 2,000 acres more compensatory mitigation than our own analyses and scientific opinion showed were needed (See Section 7.2.1). The evaluation of additional floodway closure location and operation alternatives is also evidence of the Corps considerations.

The project, as proposed, will significantly reduce the duration and frequency of flooding on 130,000 acres of Mississippi River floodplain, eliminate the last remaining connection of the Mississippi River with its historic floodplain in Missouri, and adversely impact over 18,000 acres of wetlands.

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Regarding the scoping recommendation made by the Service in the 12 July 2001 letter, only one main point was recommended for further Corps analysis. That point was the operation of the New Madrid Floodway. The analyses undertaken by the Corps with respect to floodway operation was to determine project implementation impacts or if project implementation would prevent the successful operation of the floodway in the event of a Project Design Flood. These determinations have been included in the document.

- The Service has misrepresented three distinct facts in this comment. The 130,000 acres that will be protected from flooding are not acres that are frequently flooded. These acres correspond to the 300-foot National Geodetic Vertical Datum (NGVD) contour. As Table S-1 indicates, the 55,000 acres in St. John Bayou Basin and 75,000 acres in the New Madrid Floodway are flooded in a 30-year or greater flood event. While floods of this magnitude have a devastating impact on crops, structures, roads, and utilities of the area, their infrequent occurrence result in little impact on fishery and wetland resources in the basins. As presented in Table S-1, the proposed project will significantly reduce frequent flooding on a total of 27,372 acres, 17,316 of which are located in the New Madrid Floodway.

The statement that this is the "last remaining connection of the Mississippi River with its historic floodplain in Missouri," is not true because the Little River Headwater Diversion is a historic Mississippi River floodplain in Missouri, and it remains connected to the river. Further, it should be noted that other tributaries in the vicinity of the project area are currently connected, and will continue to remain connected, to the Mississippi River as well. Unless the Service believes that the resources recognize the difference in Missouri versus Arkansas, Kentucky, or Tennessee, then these areas should be considered valuable as well. They include:

<u>Basin</u>	<u>Distance to NM Floodway</u>	<u>Acres Flooded*</u>
Little Rvr Headwater Diversion (MO)	118 miles	6,400
Cache River (IL)	71 miles	12,200
Mayfield Creek (KY)	61 miles	26,300
Bayou DuChemin/Obion Creek (TN)	33 miles	157,400
Forked Deer/Obion River (TN)	70 miles	50,900
Hatchie River (TN)	116 miles	66,800

* Acres Flooded based on 1997 satellite imagery corresponding to a 25-year flood event. Values shown do not include batture lands.

Also, with the gate operations of the Recommended Plan, connectivity is established in a managed manner with the River through the fish rearing mid-season. This is similar to many areas around the country where the Service and other resource agencies artificially manage water levels for the benefit of fish and wildlife.

The recommended plan, Alternative 3-1.B, will not adversely impact over 18,000 acres of wetlands. Inundation caused either directly from backwater flooding or from high Mississippi River stages that lead to headwater inundation in St. Johns Bayou Basin (St. Johns) and the New Madrid Floodway (New Madrid) will be reduced on less than 13,205 acres of wetlands. The Corps' position is that all forested jurisdictional wetlands will retain jurisdictional status. As a result, the maximum potential loss of jurisdictional wetlands (from those not currently forested) will be less than 7,418 acres of farmed wetlands. Furthermore, the Corps, in consultation with DOI, has proposed mitigation for the recommended plan that will result in the reforestation of 8,375 acres of previously cleared lands in or near the project area. This reforested acreage will become jurisdictional wetland. As a result, forested wetlands in the project area will, with project implementation, be more than doubled.

Measures to adequately minimize and/or offset project impacts to the highest quality habitats have not been identified.

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- Many measures to avoid impacts have been identified. These include several additional levee closure locations, gate operations, and reductions in channel work that are evaluated in the RSEIS. Not only were these measures evaluated, every measure that is justified has been adopted. Because of this, a recommended plan that allows for more river connectivity during the fishery spawning and rearing season has been adopted as the recommended plan. Project impacts have been avoided such as the habitat for the golden topminnow in the upper reaches of St. James Ditch. Impact to other resources has been minimized such as the nine-foot, undisturbed channel strip and single sided channel work in the St. Johns Basin for mussels as well as modified gate operations for the rearing season fishery in the Floodway. Some resources will be improved by features of the project like the winter waterfowl ponding and the additional measures (buffer strips, in stream

Department of the Interior Recommended Solution

Although a preferred alternative has not been identified in the Draft RSEIS, the Corps' designation of Alternative 3-1.B (which includes levee closure alignment Option 1) as the National Economic Development Plan leads us to believe that Alternative 3-1.B will be the Corps' preferred alternative. We do not believe that the NED Plan is the environmentally preferable alternative or that the NED Plan provides for equal consideration of wildlife conservation pursuant to the Fish and Wildlife Coordination Act. [The Department recommends that the Corps reconsider the two uppermost setback levees, referred to in the RSEIS as Alternative 7-2 (originally called Option 4) and Alternative 7-3 (originally called Option 5).] Constructing a levee closure further up the Floodway would still provide benefits from reduced flooding in the town of Pinhook and facilitate increased agricultural production in the Floodway, while maintaining a larger portion of Floodway's vital connection with the Mississippi River.

Constructing [one of the two uppermost levee closures would allow Floodway areas below, the levee to remain open to the Mississippi River and would substantially reduce the loss of fishery] and wetland habitats and ecological functions not attainable with closures lower in the Floodway. These same lands would also be very suitable as mitigation sites. The Department believes these two setback levee locations represent the best compromise possible between flood protection, increased economic development and the protection of important aquatic habitats and other environmental functions.

A key requirement for further consideration of any of the two uppermost levee closure in the Floodway is that adequate compensatory mitigation lands must be sited both below and above the levee closure to meet the hydrologic criteria for wetland and fishery functions which require floodplain/river connectivity. In order to minimize the losses to connectivity, fisheries, and bottomland hardwood habitat, the gate and pump operations must allow for adequate backwater inundation within the Floodway and the duration and timing of backwater flooding must be suitable for fish species and waterfowl use. The Department recommends that the Corps work with the Service, Missouri Department of Conservation, and Missouri Department of Natural Resources to develop biologically sound and acceptable mitigation measures, including gate and pump operation plans.

Project Area Significance

The New Madrid Floodway is a biologically unique area that requires special consideration in the RSEIS and overall project planning. The Floodway is approximately 33 miles long with a maximum width of 10 miles and covers 132,605 acres (207 square miles). The Floodway has little topographic relief, with elevations ranging from 280 to 315 feet National Geodetic Vertical Datum. According to the RSEIS, the Floodway represents about 10 percent of the total Mississippi River floodplain within a 113-mile-long river reach. This is significant

measures, and wildlife corridor detailed in Appendix L, attachment 1) for fishery habitat improvement in the Floodway. The remaining unavoidable impacts to project area resources are more than fully mitigated by the reforestation of more than 8,300 acres of cleared land.

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4. The Corps understands the Service's belief that the NED plan is not the environmentally preferred alternative. The Service has made it clear that it is opposed to any plan to close part of the floodway to backwater flooding from the Mississippi River. If the floodway must be protected, the Service prefers that the protection be minimized and the exposure to flooding maximized. Notwithstanding the Service's position, the Corps has fully and equally considered wildlife conservation in accordance with the Fish and Wildlife Coordination Act. Impacts to these resources have been avoided, minimized, and compensated to the maximum extent practicable and in accordance with the overall project purpose. By contrast, the levee closure alternatives recommended by USFWS do not meet the project purpose and is not economically justified. Supporting data are presented in sections 2.4.4.2, 2.4.4.3, and Appendix B. Alternative 7-2 only requires about 8 percent less compensatory mitigation than the Recommended Plan while costing \$8.6 million more than the recommended plan and forgoing more than \$400,000 in annual benefits from the closure and more than \$2,600,000 from the pumping station. While Alternative 7-3 does lower the required mitigation to 5,390 acres, it protects much less farm land than the recommended plan. The total first costs for Alternative 7-3 are about 0.8 percent less than for Alternative 7-2, but the annual benefits for the Alternative 7-3 levee closure are more than \$530,000 less than annual benefits for Alternative 7-3. Consequently, the annual cost to benefit ratio is 0.3 for Alternative 7-3. The Corps has considered Service recommendations and has put forth the recommendation that achieves the best balance of avoiding and minimizing project impacts while still accomplishing the authorize purpose. The Corps will mitigate unavoidable impacts in conjunction with implementation of the Recommended Plan. The Recommended Plan actually exceeds the required compensatory mitigation for most resources categories.

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5. While the national *environmental* interest may in fact be better served by a higher closure, the Corps is responsible for finding an appropriate balance between the environmental resources of the project area and the harm that flooding is doing to the residents and the national economy.

As stated in Response #4, these two alternatives have benefit cost ratios well below 1.0 and thus do not serve the national *economic* interest. Flooding is causing harm to the landowners, residents, farm operators, workers, roads, utilities and other infrastructure of the area. The most appropriate balance between the important environmental resources in the project area and the harm that flooding is doing to the of the area and the national economy is the Recommended Plan. The Corps believes that environmental impacts are properly assessed and avoided, reduced, or compensated under the Recommended Plan.

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6. As stated in Response #4, the two uppermost levee closure alternatives were eliminated from further consideration. It should also be noted that the Corps solicited the participation of the DOI during every phase of the development of this RSEIS and has thoughtfully considered and addressed the extensive input provided by DOI and others. See response to comment 1 for examples. Mitigation Site #4, Eagles Nest, is more than 2,500 acres of land that lies between the Preferred Plan and Alternative 7-3, which the Service is promoting here. This area is where most of the reduced impacts afford by the modified fishery and waterfowl season gate operations are gained. Season inundation in this area will accomplish much that the Service desires regarding Alternatives 7-2 and 7-3. The Corps continues to be committed to continue legitimate efforts to reduce project induced environmental impacts through gate and pumping station operations. However, the Corps must do so in a framework that accomplishes the authorized project purpose.

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7. While providing an important source of diverse habitat to resident and migratory fauna, the New Madrid Floodway is neither biologically unique nor the only remaining portion of the historic

considering that nearly 90 percent of the river's floodplain in this reach has already been isolated from the river by flood control activities. Although the floodplain of the New Madrid Floodway is contained within a frontline levee along the river and a setback levee, a 1,500-foot gap in the levees at the downstream end allows annual inundation of the lower Floodway. This levee gap represents the last remaining connection of the Mississippi River with a significant portion of its historic floodplain in the State of Missouri. This river/floodplain connection is an irreplaceable biological and ecological attribute of the Floodway.



Mississippi River floodplain connected to the river in Missouri (please refer to the second issue addressed in Response #2 above). Although high species diversity has been documented in the floodway, the numerically dominant groups of fishes (70-85% of species) are common and ubiquitous to the entire Lower Mississippi River Valley, e.g., gizzard shad, mosquitofish, common carp, channel catfish, buffalo (Refer to Section S-4.3 and Appendices G and H). Except for threadfin shad and the exotic bighead carp, all of the fish species collected in the New Madrid Floodway were also collected in the St. Johns Basin, which has intermittent connectivity to the Mississippi River. Fish species diversity was actually higher in the St. Johns Basin, and many taxa were characteristic of wetland habitats and sluggish delta streams. Work is being avoided in a portion of the project area where the golden topminnow was found. Although the golden topminnow was previously thought to be extirpated from Missouri, it is widespread throughout most of the Mississippi Valley.

Wetlands in the area support a number of State-listed amphibian species, including the three-toed amphiuma, Illinois chorus frog, and the eastern spadefoot toad. These species are supported by forested wetlands, which will be more than doubled through implementation of the proposed mitigation plan (8,375 acres).

As described in Section 3.6, the total two-year floodplain from Cairo, Illinois to Carruthersville, Missouri contains approximately 177,571 acres, less than 10 percent of which (17,316 acres) occurs in this project area.

The condition of the project area below 300 feet NGVD, 86 percent of which is currently cleared and drained, differs significantly from historic conditions in southeast Missouri. The majority of cleared land in the project area is used for soybean and corn production. Currently there are approximately 7,900 acres of bottomland hardwood, riparian, and cypress/tupelo covered land below 300 feet NGVD in the project area. With the proposed mitigation, bottomland hardwood in the area will more than double, fishery habitat will be improved with buffered streams and in-stream habitat measures, habitat conducive to winter waterfowl and shorebirds will be increased, and terrestrial species such as swamp rabbit, deer, turkey, reptiles, and fox will be protected from the higher flood events that in the past have meant severe stress and population depletion. Big Oak Tree State Park will benefit from mitigation/restoration offered under this project. In short, the recommended plan allows conservation agencies and landowners to manage the resource for the betterment of all.

Regarding the connection with the Mississippi River being an "irreplaceable biological and ecological attribute of the floodway," the modified gate operations avoids disconnection with the river to the largest amount possible at the key time of the year to reduce fishery impacts. This happens while still accomplishing the authorized project purpose of flood control. There are some losses to potential agricultural benefits that the modified gates operations cause, but the Corps analysis shows there is still a net project benefit. This proves that the Corps' efforts to balance the protection of the environment with the project flood purpose have been successful. Also, the additional avoid and minimize measures, combined with the compensatory mitigation, improve the quality of the fishery habitat in the floodway over the existing conditions.

The natural cycle of annual backwater flooding of the Floodway provides significant spawning, nursery, and foraging habitat for diverse populations of river fish (R. Sheehan, R. Heidinger, P. Wills, M. Alarcon, and M. Schmidt. 1998. St. Johns Basin and New Madrid Floodway fisheries survey: final report. 39 pages). [The ability of fishes to move freely between the river and the floodplain during these events is critical in sustaining economically important sport and commercial fish populations and fish diversity in the Mississippi River ecosystem.] The interaction of the river with this floodplain also provides important habitats for migratory birds and a unique assemblage of amphibians, reptiles, freshwater mussels, and crayfish.



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- 8. Approximately 70-85% of the species of fish collected during project area sampling are ubiquitous in the lower Mississippi River valley. The New Madrid Floodway is not a unique resource for these species. The 17,316 floodway acres (2-year flood inundated area) provides spawning and rearing habitat in the same fashion as the other 177,571 acres of floodplain located between Cairo, Illinois and Carruthersville, Missouri. One fact that contradicts the importance that the Fish and Wildlife Service places on the New Madrid Floodway and unconstrained river connectivity as compared to the St. Johns Bayou basin, were the numbers of species collected from each basin. The number of species collected in St. Johns Basin was 70 while only 45 species were collected on the New Madrid Floodway (Sheehan, Feb. 1998 Table 9 and 10). From a sheer quantity perspective, there were more fish actually collected during Sheehan's sampling from the floodway water bodies than the St. Johns Basin, but that included much less diversity, and fish present were common, ubiquitous species present throughout the Mississippi River basin. In particular, three tables from Sheehan's work illustrate that the species diversity present in the St. Johns basin is similar to or greater than the floodway. Table 22 shows a total Shannon-Weaver diversity index for "river species" of 2.07 for St. Johns basin while the floodway's total is less at 1.94. In tables 23 and 24, "inundation benefited

[Of an original 2.5 million acres of forested wetlands in southeast Missouri, approximately 50,000 acres remain and are becoming increasingly scarce. At the same time, they become more and more critical as refuge to numerous species that once flourished on the floodplain. Forested wetlands have been found to support a significantly higher abundance and diversity of bird species compared to upland forests.] In the project area, numerous species of raptors, woodpeckers, warblers, thrushes and flycatchers use bottomland hardwood forests as migration and breeding habitat. The State-listed Mississippi Kite (rare) has been known to nest in bottomland hardwood forests within the project area. As forested wetlands disappear, so do many species that rely on this habitat type.

Recent research has pointed to sharp population declines in several neotropical migratory songbird species (i.e., white-eyed vireo, northern parula, cerulean warbler), particularly those that require large forested tracts to successfully reproduce. In the Lower Mississippi Valley, the Partners in Flight Program is focusing on forested wetland conservation because 13 of the 14 priority species require bottomland hardwood forests for breeding. The Service, State agencies, and the private sector are developing management objectives to protect forest breeding birds and their habitats in the Mississippi Alluvial Valley. As part of that effort they have identified "bird conservation areas" (i.e., forest patches of 10,000 acres or greater to support long-term, self sustaining populations of forest breeding birds) which contain cleared areas having the potential to be reforested. Several of the identified bird conservation areas are located in or near the project area.

The Draft RSEIS describes the unique biological and ecological attributes of the project area, including its remarkably diverse and abundant fish and wildlife resources. The Draft RSEIS describes the rich and distinctive fishery, including the fact that 93 fish species (81 percent of all fish species known from this segment of the Mississippi River) occur in the New Madrid Floodway and St. Johns Bayou Basin, as testament to its significant biological value. Ten fish species in the project area are considered endangered, rare, or on the watch list in the State of Missouri, and one species (golden topminnow) that was believed to be extirpated from Missouri was recently found in the area. The following statement in the Draft RSEIS (page 17) provides an excellent summary of the fish and wildlife values of the project site: "The project area contains more diverse habitats and natural communities than elsewhere in the Missouri Bootheel. . . In spite of numerous modifications, the varied habitats within the project area contribute significantly to Missouri's biodiversity. Although greatly altered, the project area still functions as an integral part of the ecology of the lower Mississippi River."

Project History

[In June 1999, the Department provided extensive comments on the 1999 Draft Supplemental EIS for this project that stressed the need to identify a less environmentally damaging alternative that would avoid the need to refer the project to the Council on Environmental Quality in accordance with 40 CFR 1504. The Corps of Engineers filed the Final Supplemental EIS in September 2000. The Department responded on September 29, 2000, expressing concern that our comments on the Draft had not been adequately incorporated into the Final SEIS.] The letter also transmitted the Department's intent to refer the project to CEQ and requested a time extension for referral. Subsequent to our September 2000 response a number of agency meetings were held in an effort to resolve the outstanding concerns.

In October 2000, a headquarters-level interagency team comprised of Corps, U.S. Fish and Wildlife Service, and Environmental Protection Agency - personnel was formed. The team was tasked to address key unresolved project issues and to explore options for flood protection while minimizing environmental impacts. The team's framework was provided to the Department in a January 19, 2001, letter from the Assistant Secretary of the Army for

species" and "stream species" diversity values are presented. Again, St. Johns Basin consistently shows higher diversity than the floodway at 2.95 versus 2.47 (inundation benefited species) and 2.43 versus 1.87 (stream species), respectively. The Corps feels strongly that the additional avoid and minimize measure presented in Attachment 1, Appendix L could improve fishery values of the New Madrid Floodway. Furthermore, the Corps believes the statements by the Service that the floodway is a "regionally important fishery" are misleading when the relative value of St. Johns Basin and/or the potential improvements to floodway fishery habitat are not mentioned.

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9. 8,375 acres of currently cleared land will be reforested as part of the mitigation proposed for the recommended plan, doubling forested wetland in the project area. As a result, overall forested wetland acreage in southeast Missouri will increase approximately 16 percent, from about 50,000 acres to more than 58,000 acres.

10

10. Please refer to Response #7 and Response #8. As described in Response #7, many of the species that illustrate the "diverse habitats and natural communities" in the project area occur in the St. Johns Bayou basin. This basin is currently cut off from backwater flooding during some of the year due to the setback levee and the St. Johns gravity outlet structure. The recommended plan calls for the gravity outlet gates in the New Madrid Floodway to be left open almost two feet higher than the previous avoid and minimize alternative and for this higher level to last through the end of mid-season spawning/rearing. This will allow for more main stem Mississippi River species to migrate into the floodway for spawning/rearing activities. The Corps has made significant adjustments to the original project (See response #1 above) for the expressed purpose of protecting these biologic and ecologic values, while still accomplishing the project purpose.

11

11. Noted.

12

12. Noted.

Civil Works. The team identified, at the conceptual level, four alternative levee closure locations alignments for the New Madrid Floodway located at various distances northeast of the 1,500 foot closure alignment (referred to in the RSEIS as Alternatives 3-2, 3-3, 7-2, and 7-3). The new levee closure locations provided in the framework formed the basis for additional alternative analysis in the Draft RSEIS. The Assistant Secretary's letter also committed the Corps to address the Department's previous comments on the project, including the Service's concerns with the adequacy, timing, location, and certainty of compensatory mitigation for project-induced fish and wildlife losses. In March 2001, in a letter to the Department, the Deputy Assistant Secretary of the Army, for Management and Budget, reaffirmed the commitment to prepare a revised supplemental EIS to more fully address the Department's concerns.

The Service's Missouri Ecological Services Field Office has been actively involved in the reevaluation of the project with the Corps, MDC, MDNR, Gulf Engineers and Consultants (Corps contractor), and the project sponsors. The Service provided three letters to the Corps in accordance with its responsibilities under the FWCA, as a cooperating agency for the Draft RSEIS, and its agency expertise on wildlife issues as identified in the CEQ NEPA Regulations. A June 7, 2001, scoping letter from the Service identified numerous environmental issues that should be addressed in the RSEIS. On July 12, 2001, the Service provided the Corps with a letter noting several aspects of the New Madrid Floodway operation that should be discussed for each alternative levee closure location. The Service's preliminary evaluation of fish and wildlife impacts and mitigation needs for the alternative levee closure locations was provided to the Corps in an October 16, 2001 letter. In the letter, the Service also recommended additional measures to adequately reduce fish and wildlife impacts associated with the New Madrid Floodway portion of the project and recommended that the Corps request an independent review of the New Madrid portion if either of the two lower levee closure locations (Alignment Options 1 and 2) were selected as the preferred alternative.

Concerns with the Draft RSEIS

Early in this evaluation, the Service and the MDC Indicated that the three uppermost closures (Alternatives 3-3, 7-2, 7-3 (originally referred to as Options 3, 4, and 5)) provided the best opportunities to minimize fishery and bottomland hardwood habitat losses. The Corps gave early indications that these three options presented specific logistical problems concerning operation of the Floodway. Ultimately, the Corps retained Alternative 3-3 for detailed study in the Draft RSEIS and declined adequate consideration of Alternatives 7-2 and 7-3 (two upper locations) for detailed study, stating that the alignments were infeasible. In the Draft RSEIS, the Corps cites unfavorable cost benefit ratios due to loss of economic benefits (reduced acreage of agricultural lands benefitting from flood protection), lack of support from the local sponsors, and the Floodway operation constraints as the reasons for eliminating Alternatives 7-2 and 7-3 from detailed study. The Department believes that the elimination of these two alternatives fails to satisfy the NEPA requirement that full evaluation of all feasible alternatives be conducted for any proposed project.

We believe the Draft RSEIS discussion concerning compensatory mitigation of fish and wildlife and bottomland hardwood habitat losses is insufficient. The Draft RSEIS does not accurately, address (for both environmental and economic factors) the important issue of locating appropriate mitigation lands in the project area. Appendix L acknowledges that there will likely be a number of resource tradeoffs associated with mitigation leading to off-site and out-of-kind compensation. Neither this Appendix L nor the Draft RSEIS document explains why such tradeoffs will be necessary. The Draft RSEIS states in several places that the (conceptual) mitigation plan will compensate 100 percent of all modeled losses, however, no details are provided how this will be accomplished. The Draft RSEIS notes that few

13 13 The referenced Service and/or DOI letters have all been received and the Corps has considered every recommendation provided. The Corps believes that environmental impacts are properly assessed and avoided, reduced, and otherwise compensated if unavoidable under the recommended plan and recommended mitigation. The Corps does not believe it can otherwise or more appropriately balance the harm that flooding is doing to the residents of the area and the national economy with the important environmental resources in the project area (See Response # 4). Regarding independent review, this project has been subjected to repeated review (or scrutiny) by federal and state agencies as well as non-Governmental Organizations and the general public over the last five years. There have been two reviews of draft EIS documents, one final SEIS review, at least 3 public meetings, and many other unofficial and official meetings to discuss the project. Most parties involved with these reviews and meetings and comment periods were independent of the Corps. In addition, Corps Division staff and personnel from other Corps districts have reviewed the analyses herein. The Corps is specifically tasked to recommend and make a decision and cannot defer this authority to an independent body without additional congressional authority. Having an independent body express yet another opinion will not alter the fact that the Corps is the decisionmaker. Further delay and more study will not change that role and does not serve the public good. Furthermore, the Service would not be expected to introduce additional issues if it has fulfilled its role as a cooperating agency under the Fish and Wildlife Coordination Act.

14 14. The Corps provided more than sufficient documentation as to why these two alternatives were not carried through detailed analysis. National Environmental Protection Agency (NEPA) does not require study, in detail, of an alternative in which the costs associated with implementation far exceed expected benefits. This disqualifies it as a "feasible alternative."

15 15. The Corps discussed mitigation and potential bottomland hardwood impacts in great detail. Compensation of fish losses was based primarily on reforestation frequently flooded agricultural lands and this was determined to be the most acceptable compensation method during early project planning with USFWS. Criteria for mitigation site selection (described in Appendix L, Section 10, were established in coordination with Washington level Corps, FWS, and EPA representatives.

landowners in the project area have indicated an interest in conservation incentive programs under current flooding regimes. As a result, the availability of mitigation lands from willing sellers after project implementation and improved drainage may be a significant constraint on achieving successful mitigation. This deficiency should be adequately assessed in the final document. In addition to the uncertainty associated with the location of mitigation lands, the Final RSEIS should clearly disclose and address technical problems, feasibility, and implementation of the proposed mitigation plan.

The flood reduction/drainage objectives of the project appear to preclude suitable hydrological conditions to sustain terrestrial and aquatic habitat associated with most of the Corps' proposed mitigation plan. Based on Corps data, there is not enough frequently flooded cropland available after implementation of the project to provide even a third of the acreage necessary to achieve compensatory habitat mitigation. Contrary to numerous statements in the Draft RSEIS, on-site, in-kind compensation of most of the project's fish and wildlife habitat losses is not currently feasible for the alternatives studied in detail. The Final RSEIS should acknowledge that the sites to be considered as possible mitigation sites should handle the potential to provide a significant increase in habitat value with the implementation of appropriate mitigation measures. Sites already providing such habitat value should receive minimal credit towards meeting compensatory mitigation needs. The Final RSEIS should not consider batture lands, conservation management areas, mitigation sites (for other projects), or lands with Wetland Reserve Program easements as appropriate sites for providing compensatory mitigation to offset fish and wildlife losses attributable to the proposed project.

The Draft RSEIS does not adequately describe the full range or worst case scenario of impacts to the high value natural resources affected by the project. The Draft RSEIS contains ambiguous statements about project impacts and the ability to adequately mitigate them, which we believe impairs the accurate disclosure of foreseeable environmental consequences that could result from this project. The Draft RSEIS discussion of impacts contains undocumented statements regarding potential environmental effects that are not fully understood or defined due to the lack of information, studies, science, capabilities of predictive models, or other limiting factors. Despite the limitations of available data, the Draft RSEIS contains statements that are misleading, inferring that the project will have minor or no impact.

For example, the RSEIS states that much of the wetland acreage in the project area will remain saturated even after the frequency and duration of flooding has been reduced by the project. However, the RSEIS fails to describe the project's impacts on the functions of those wetlands as a result of reducing the hydrology from inundation to saturation. In contrast, expectations of post-project hydrology clearly indicate that many of the farmed wetlands will no longer retain wetland functions or hydrology, which will lead to agricultural intensification. Most of the quantitative environmental impact analyses focused on fish and wildlife habitat using species models. To date, no studies or predictive models have been used to quantify project effects on key wetland and floodplain functions (e.g., water quality, nutrient cycling, detrital import/export, floodwater storage, habitat for reptiles and amphibians). Without this information, it is misleading for the RSEIS to claim that compensation for these losses has been addressed. These impact concerns should be fully addressed in the Final RSEIS.

District, field office, and regional office representatives from these agencies, as well as state resource agencies and the local sponsor also participated. Appendix L acknowledges potential trade-offs that would likely occur in mitigation site selection. Resource agencies may ultimately determine that a site is very desirable because of its proximity to an existing managed area, value to resources other than fish, or for other reasons. The intent of the discussion was to acknowledge that trade-offs may be desirable and afford the mitigation interagency team flexibility in site location and/or development. Regarding availability of mitigation lands, the sites described in Appendix L were identified by local interests as having a high potential for availability. Furthermore, it is Corps policy to mitigate concurrently with project construction, so it is in both the Federal and local interest to facilitate the availability and acquisition of suitable mitigation lands in order to implement the project. Regarding suitability of mitigation lands, USFWS has been invited to attend field trips for the express purpose of identifying and evaluating potential mitigation areas but has not participated.

16 16. Refer to Response #15. Additionally, mitigation planning was initially based on reforestation frequently flooded agricultural lands. The relatively recent idea that batture lands should not be considered suitable for mitigation sites is problematic. If suitable mitigation sites are confined to areas within the New Madrid Floodway or similar backwater, then unconstrained connectivity with the river to benefit river fish is hampered. Tremendous fish and wildlife benefits can accrue from reforestation of batture lands and, if it is desirable to acquire mitigation lands in close proximity to the project area, available batture lands must be considered. It is true that some of the more desirable lands could now be purchased in the lower New Madrid Floodway. With gate operation impacting farmlands up to elevation 284.4 through mid-spring spawn, acquisition and management for fish and wildlife will become more desirable and, considering impacts to farming operation, may be more available from willing sellers. The Corps concurs that lands currently within the Wetland Reserve Program (WRP) or within conservation management areas would not be suitable mitigation areas.

17 17. The Corps does not concur with the Service's assessment. There has never been an intent to mislead or to underestimate impacts. At the same time, the Corps is not required to assess impacts for a worst case scenario but for foreseeable consequences. The Corps has adequately and accurately disclosed foreseeable consequences of the project. The Corps has applied reputable scientific techniques in studies performed over more than 20 years. In the last five years, project impacts have been reevaluated focusing on Phase 1. These evaluations have been conducted using subject matter experts and input from extensive formal and informal coordination. Additional alternatives have been evaluated and modifications made to the recommended flood control and mitigation (See Response to #1). As a result, the Recommended Plan avoids and minimizes adverse environmental impacts and fully compensates for all categories of unavoidable impacts, and provides significant over compensation for most categories.

18 18. The Corps has accurately stated the degree of reduced inundation in terms of area, depth, and duration. Resource agencies agreed early in project planning that the best way to measure impacts associated with reduced inundation was to evaluate impacts associated with fish spawning and rearing because this resource would be most impacted among various resources and because it can be measured in terms of impact and compensation. The Corps has addressed impacts associated with other floodplain functions such as floodwater storage and performed water quality studies to evaluate associated impacts. Water quality analysis indicated that there would be little change in pre- and post-project conditions, and this is reported in the water quality appendix, Appendix I.

The agricultural intensification that is anticipated with the project is the result of a change in cropping practice to a higher value crop (i.e., soybeans to corn). Based on current farming practices in the

Section 1.6 (Other Potential Benefits) of the Draft RSEIS speculates that the project may benefit environmental resources through improved opportunities to manage water levels (in the New Madrid Floodway). According to this premise, due to the Corps' previous flood control work associated with the Mississippi River and Tributaries project, floods now occur at higher stages and the project will protect important natural areas like Big Oak Tree State Park and Ten Mile Pond Conservation Area from extreme flood events. The ability to manipulate water levels within channels and low lying areas after control structures are in place was also identified as a benefit in the Draft RSEIS. However, the Draft RSEIS neglects two important points: 1) the area is an integral part of the Mississippi River floodplain and its biological values are dependent directly on the river's natural ebb and flow; and 2) the Floodway was specifically designed and constructed for extreme flood events (Project Design Flood). The implication that replacement of the natural hydrograph/connection of the floodplain with an artificial water control system is environmentally preferred is contrary to established scientific principles and management practices for conserving riverine/floodplain ecosystems. This concern should be rectified in the Final RSEIS.

The Draft RSEIS fails to clearly describe the anticipated effects of project-related changes in hydrology which drive both the environmental and economic outcomes. Rather than the location and nature of flooding changes being fully discussed to better understand project impacts, the Draft RSEIS contains vague references to a decrease in backwater flooding, which appears to have been considered differently in the various impact analyses. For instance, the Service requested in its June 7, 2001, scoping comments that the Corps clearly describe the reduced duration (e.g., days) of flooding by water elevation that is the basis for a agricultural benefits and needed to accurately determine wetland floodplain impacts. The Draft RSEIS does not fulfill this request. As noted in the text, environmental impact analyses (e.g., wetland acres effected) are limited to below 300 feet National Geodetic Vertical Datum (or, in some cases 290 feet NGVD). Economic impacts, however, appear to be evaluated above 300 feet NGVD, up to the project design flood on the Mississippi River.

It is unclear how the project alternatives can provide benefits from reduced flooding in those areas while having no environmental consequences. In addition, the Draft RSEIS does not provide a concise description of how project impacts and benefits vary with each alternative understand and compare resource tradeoffs, consequences, and uncertainties. Many of the underlying assessment assumptions or methods are scattered throughout the document. This makes the Draft RSEIS confusing and, in some cases, could lead to conflicting interpretations. The final document should reconcile such inconsistencies and provide a clearer picture of the benefits and impacts of each project alternative, and should also include an evaluation of the environmental benefits associated with each of the project alternatives.

area, the acres intensified are the cleared acres between the with and with-out project 3-year flood elevation. As described in Appendix B, pages B-13 thru B-16, agricultural intensification is only expected to occur on land that is currently farmed. No currently wooded land is expected to be converted into agricultural production.

The Corps does not agree that this Service statement; "expectations of post-project hydrology clearly indicate that many of the farmed wetlands will no longer retain wetland functions or hydrology, which will lead to agricultural intensification." Farmed wetlands reported in Tables 4-1 and 4-2 of this document will receive a reduction in inundation from *backwater* only. That reduction could cause those lands to no longer meet the Food Security Act inundation criterion, however, these wetlands are still expected to perform wetland functions. These farmlands are poorly drained and winter and spring precipitation will continue to cause water ponding (Lucky, 1985). As Lucky state's "Because of the low relief in the area, runoff is slow and any major precipitation usually causes considerable standing water." There is no channel improvement work included in the project for the floodway to alter these drainage problems, nor will the Recommended Plan alter floodway saturation from seepage during high river stages. The Recommended Plan allows water onto the floodway up to 284.4 feet through May 15, thereby increasing the farmed acres that meet the Food Security Act over Alternative 3-1A by 705 acres. During the crop season, these farmlands, even between Highway WW and the closure levee, need irrigation when the river stage is low and there is inadequate precipitation.

19 19. There are certainly times when extreme flood events cause adverse impacts to terrestrial resources. However, the Corps has never intended to convey that post-project would improve all environmental resources; otherwise, extensive analysis and recommendations related to avoid and minimizes measures, gate operation modifications, and compensation measures would have never been formulated. It is true that a closure and gates do offer some control opportunities for water that are not currently available. The floodway must still be operated, if necessary, for a project design flood.

20 20-21. The Corps disagrees with this comment and has gone to great lengths to accurately describe changes in hydrology associated with the various alternatives. Regarding elevations used in impact analysis, some analyses were based on frequent flood events (e.g., 290 feet NGVD or 2-year occurrence to perform fishery analysis) whereas others were based on inundation analyses (e.g., wetlands), or other types of analyses. Regarding difference in wetland versus economic analyses (benefit/impact), see Response #98.

21

The detailed analysis of the NED plan (Alternative 3-1.B) in the draft RSEIS still represents a potential for significant adverse impacts to trust resources if a feasible less environmentally damaging alternative can not be identified by the Corps. Therefore, the Service may recommend that the Department of the Interior consider this project for referral to the Council on Environmental Quality in accordance with 40 CFR 1504.

22

22. The recommended plan, Alternative 3-1B, involves gate operation to ameliorate fish impacts on over 2,000 acres in the lower floodway, as compared to the originally recommended Avoid and Minimize Plan. The Corps has recommended measures that avoid, minimize, and fully compensate all fish and wildlife resource losses. Also, the Corps has recommended significant avoid and minimize measures that will benefit aquatic and terrestrial resources in the New Madrid Floodway. These measures are recommended for implementation in addition to the compensatory mitigation measures in an effort to develop a more environmentally sustainable project. The Corps looks forward to continued work with the Service and other resource agencies to execute timely and appropriate mitigation features as the Corps proceeds with project implementation.

We appreciate the opportunity to provide these comments. If you have questions regarding our comments, please contact Mr. Charles Scott, Field Supervisor, Fish and Wildlife Service, 608 Cherry Street, Room 212, Columbia, Missouri 65201-7712; telephone (573)876-1911, extension 104.

Sincerely,

Willie R. Taylor
Director, Office of Environmental
Policy and Compliance

Enclosures:

- 1. Specific comments
- 2. Comments of the National Park Service

Enclosure 1

**Specific Comments on the
St. Johns Bayou and New Madrid Floodway Project, Missouri
First Phase
Draft Revised Supplemental Environmental Impact Statement (RSEIS)**

RSEIS-page iv, paragraph 1: The Service believes that a detailed mitigation plan, including the location of appropriate, dedicated mitigation sites, should be identified in the Final RSEIS and incorporated into the Record of Decision (ROD). As noted in its September 2001 Planning Aid letter report, the Service believes that identifying and evaluating specific mitigation tracts would provide the framework for far less speculative estimates of environmental and economic impacts of the proposed project alternatives. With specific mitigation lands identified, the Corps, resource agencies, decision makers, and the public could have much greater confidence in the reliability and accuracy of project evaluations.

23

23. The Corps has made more refinements in the mitigation plan since filing the draft document. More information is available regarding elevations and flooding frequencies of some potential sites. Also, the desirability of lands within the floodway that would be impacted by gate operation for fish has become clearer and the likelihood of its availability from willing sellers has been discussed with the local sponsor. It is against policy and would not be wise, for several reasons, to specify the precise sites that would definitely be acquired. Using sites identified in the mitigation appendix as the starting point, the Corps will work with resource agencies and the local sponsor to identify and acquire the most desirable sites for mitigation. Because it is Corps policy that mitigation be implemented concurrently with project construction, it would be in the interest of all to identify and acquire mitigation lands as expeditiously as possible.

RSEIS-page S1, paragraph 1: The "Summary of Impacts" provides only a very general statement that the primary impact of the project would be a reduction in backwater flooding; however, it does not clearly describe the expected extent or benefits of that reduction (e.g., what areas will have how much less flooding and how does that result in socioeconomic benefits). The final document should provide that information and clearly explain how those benefits vary with each alternative in order for the reader to understand and compare the alternatives.

24

24. Although extent of reduction and benefits of reduction associated with alternatives was presented in the impacts section of the draft document and in the Economic Appendix, the Summary section has now been expanded to more clearly address how benefits vary with each alternative.

M-14

RSEIS-S1, paragraph 2: This paragraph fails to portray the Service's findings detailed in its FWCA report, as well as its Planning Aid letter report, regarding the post-project conditions of wetlands in the project area. The section refers to the determination that wet cropland (i.e., farmed wetlands) will remain saturated post-project. That position should be identified as the Corps' opinion rather than as fact. The Service contracted for an independent review to determine the likely post-project wetlands hydrology. The results of that review were provided to the Corps as an attachment to the Service's March 1999 draft FWCA report but are not included with the final FWCA report of June 2000 found in Appendix E of the Draft RSEIS. That review noted several limitations inherent to the Corps' qualitative analyses. Based on expected post-project hydrology and on historic and recent trends in agriculture, the Service believes that many of the farmed wetlands will no longer retain wetland functions or hydrology.

25

25. The results of the USFWS independent review of project hydrology and the Corps of Engineers (COE) annotated response are included in the September 2000 Supplemental Environmental Impact Statement (SEIS) immediately following Plate 120 of Appendix J, Hydraulics and Hydrology and Water Quality.

The loss of backwater inundation on croplands as it relates to wetland hydrology is presented in Tables 4-1 and 4-2. The "Acres Inundation Reduced" column presented in the tables identifies the maximum potential wetland impacts. In Section 5.3.2, the Corps states, "Although these farmed wetlands would still retain some wetland characteristics, their jurisdictional status as a farmed wetland could be lost in the event that National Resource Conservation Service (NRCS) was called upon to perform a determination." This statement does not imply that the croplands receiving less inundation will no longer maintain jurisdictional status, but fully discloses the potential impacts due to project implementation.

In preparing the current SEIS, efforts were made to more clearly and precisely identify the wetlands impacted by project implementation for the September 2000 SEIS. The previous SEIS provided information that apparently confused reviewers, and resulted in reviewers' conclusions that overestimated the wetland impacts of project implementation. The information presented in the current document utilizes only Corps criteria for determination of non-farmed wetland impacts and only NRCS criteria for determination of farmed wetland impacts. The referenced paragraph relating to this comment (RSEIS-S1, paragraph 2) has been reworded to reflect this change.

In this comment, as well as many others in this Department of Interior letter, the USFWS requests the Corps qualify any statements about post-project wetland conditions as the "Corps opinion," and further requests that the Service's determinations regarding these issues be printed along with the Corps "opinion." Since this is a recurring theme throughout these comments, it is appropriate to give a reference to the Services' position and supporting determination from the Coordination Act Report (reference Appendix E, page 6).

The Service states "In many cases, modifications to the project area's natural hydrology and land owner practices have a greater effect on the distribution of wetlands than does the presence of hydric soils." Although this comment is stated as a generally accepted fact, the specifics of the area in question can affect the validity of this statement. With regard to the New Madrid Floodway, the closure levee that is part of this project has one very well documented direct impact to the local hydrology. This impact will be the reduction of Mississippi River backwater flooding, and therefore backwater inundation. Those impacts that can reasonably be expected to routinely occur (i.e., the two-year flood event), have been fully quantified in the document and are presented in Section 4.3 and 5.3. The Corps used the most liberal possible calculation for Corps jurisdictional wetlands (5% duration/12 days inundation analysis) and the Corps used NRCS inundation criteria for the farmed wetlands in the lower floodway. The Corps states in many places, such as Section 5.3.2, that these are the maximum calculated project wetland impacts, although the impacts could be less. While the Corps does state its opinion that many farmed wetlands will retain wetland characteristics due to other water sources (seepage, rainfall, poor drainage, etc.), the Corps has still presented the maximum potential wetland impacts to both farmed wetlands and non-farmed wetlands in the interest of full disclosure.

The Service states, "Although the Mississippi River seasonally recharges the groundwater in the eastern portions of the project area, the interaction between surface water, groundwater, and river seepage is poorly understood (USGS, per comm.)." This is a reference back to discussion between Robert Jacobson, Ph. D., USGS, and the Service during the development of the September 2000 SEIS. In fact, the Service provided a letter from USGS as an attachment to the June 2000 CAR. Hydrologists from the Corps reviewed the USGS letter, had several conversations with Dr. Jacobson, and provided a written response (Appendix J) to USGS comments in the September 2000 SEIS. USGS never stated that any portion of the analysis that the Corps performed was incorrectly or not properly performed. The comments stressed the general uncertainty associated with this particular science. The Corps agrees all estimates predicting future hydrologic conditions are inherently uncertain. As such, all information contained in this SEIS based on future hydrologic conditions has a degree of uncertainty. The conclusions presented in this SEIS related to these conditions assume

this understanding. However, the information presented in this SEIS related to future hydrologic conditions represents the best estimates based on the data available and the expertise of the professionals who conducted and reviewed the analyses. As clearly stated in the Corps response to the USGS comment letter, the analysis that has been performed is adequate and based upon the most appropriate approaches currently available.

The Service states, "In addition, the cropping patterns in areas previously subjected to backwater flooding are likely to emphasize more profitable crops and increase the use of irrigation, increasing surface and groundwater demands." While this subjective statement is based on no analysis, the Corps does feel that the comment has merit, even though there is clearly a misunderstanding regarding the nature of irrigation currently being used in the floodway. Irrigation is not practiced in the lower floodway during the springtime, high river stage season. Rather, irrigation is routinely used during the dry parts of the growing season, the summer. USGS (Lucky, 1985) states "However, throughout most of the area the available water supply is large compared to the probable crop demands and no serious problems are anticipated even under full development for irrigation."

The Service states, "A study by Lucky (1985) in southeast Missouri found that enhanced drainage lowers groundwater levels in the soil. Maki *et al* (1980) further noted that channelization not only reduces the amount of ponding on floodplains, but shortens ponding duration during the growing season because evapotranspiration demands can effectively eliminate surface ponding." This comment is irrelevant to the New Madrid Floodway portions of the project since there will be no drainage/channel improvements in the floodway. All channel improvement features in this project are proposed in the St. Johns Basin. Regarding the Service's statement that enhanced drainage lowers groundwater levels in soil, USGS (Lucky) qualifies this with regard to the immediate project area. USGS states "However, in most areas this should not cause a serious problem as more water generally is available for recharge than the aquifer is able to accept." Regarding the Service's statement that surface ponding will effectively be eliminated, USGS (Lucky) directly addresses that in their study, stating "Because of the low relief in the area, runoff is slow and any major precipitation usually causes considerable standing water."

The Corps has carefully considered the Service opinions and the information the Service has provided. The Corps has also conducted its own investigations employing its considerable experience in hydrology and hydraulics, as well as wetlands. In the Corps opinion, based on experience, professional judgment, and the information obtained, which includes actual site-specific analysis, that the project impacts on wetlands and hydrologic conditions in the area will be as the Corps describes it.

In addition, to date, project impacts to several ecologic wetland and floodplain functions (e.g., water quality, nutrient cycling, detrital import/export, floodwater storage, and habitat for reptiles and amphibians) have not been quantified, nor has compensation for losses of those functions been developed. Furthermore, although the Corps notes that there has been relatively little forest clearing in recent years, many of those years have seen extremely high water, making clearing difficult. Elsewhere, the RSEIS notes that the Natural Resources Conservation Service (NRCS) has recently reviewed requests for wetland determinations on forested tracts, suggesting local interest in land clearing. With improved drainage due to the project, the Service believes that much of the privately owned forested wetlands would no longer remain jurisdictional (or functional) wetlands and that those that do retain those attributes could be manipulated in ways that do not require a Section 404 permit.

26

26. Water quality analysis indicated that there would be little change in pre- and post-project conditions, and this is reported in Appendix I. Hydrologic analysis in Appendix C indicates that impacts of project implementation would have minimal impact on flood storage. Separate analysis was not done for amphibians and reptiles. The habitat evaluation team, of which USFWS was a participant, could have determined to evaluate impacts more specifically to reptiles and amphibians early in project planning but chose not to do so. Choices must always be made in impact analysis to determine which species should be selected for analysis. Nevertheless, it is highly likely that mitigation measures, as well as additional avoid and minimize measures recommended for this project, would fully mitigate impacts to amphibians and reptiles. The Corps differs with USFWS regarding potential for project induced land clearing. Similar woodlands in the upper floodway with similar hydrology to post-project woodlands have not been cleared. Furthermore, regulatory controls would make land clearing of subject lands very difficult unless substantial and costly mitigation measures are implemented. Though the Corps does not believe that clearing would be induced, proposed mitigation measures would more than offset such losses should they, in fact, occur. The position of the USFWS regarding induced clearing is disclosed for public review and decision-making consideration.

27

RSEIS-S1, paragraph 3: The Habitat Evaluation Procedures (HEP) Team evaluated project impacts on early, middle, and late spawning/rearing periods. Compensatory mitigation recommendations were based on mid-season losses to offset impacts to the largest group of

27. Impacts and mitigation were based on rearing losses. In the New Madrid Floodway, rearing losses were highest during mid-season, not early season. Regardless, the floodway does not provide adequate to white bass spawning habitat, which by all accounts, are riverine gravel bars. Although

species that could benefit from reforestation. In fact, in the New Madrid Floodway, the largest losses were in the early spawning/rearing period due to the white bass runs. That species, however, prefers rip-rap and sandbars and would, therefore, receive little benefit from the proposed mitigation measures. The text should be revised accordingly.

RSEIS-S1, paragraph 5: In this paragraph, the term "benefit" should be revised to "compensate" to more accurately reflect the compensatory nature of mitigation measures rather than a net benefit to the species. Furthermore, the Corps has not identified a management plan for 6,400 acres (we assume in the winter sumps areas). At this point, any potential benefits are purely speculative and should be so noted in the text. Also, please note that throughout project planning, the Service has recommended that the closure structures of both basins remain open in the winter to maintain aquatic connectivity between the basins and the Mississippi River.

RSEIS-S3, paragraph 3: Based on the figures in this paragraph, it would seem that the Corps has already determined that they will select an alternative that would reduce flooding on 55,000 acres in the St. Johns Basin and 75,078 acres in the New Madrid Floodway. If the project purpose is defined as flood reduction, rather than flood damage reduction, that purpose directs alternative selection to one that shows the greatest hydrologic effects. Unfortunately, the information in the RSEIS indicates that much of the area in which flooding is to be reduced is functional wetlands, the draining of which would appear to be at odds with recent Federal policies regarding wetlands protection. The Department continues to recommend that the Corps pursue alternatives to provide flood protection to communities and infrastructure while maintaining the functional and ecologic integrity of the project area.

RSEIS-S5, Section S.3.3: The identified project purpose is flood control, yet the Corps identifies the NED plan based on economic goals of the East Prairie EC. The Service believes there are a number of factors the Corps has not considered in its economic analysis, including disaster relief, price support payments, crop insurance, the economic value of fish and wildlife associated industries, and the conversion of significant amounts of land within the basin from agriculture to mitigation lands to compensate for project impacts. We recommend that such costs be considered and detailed in the Final RSEIS to provide decisionmakers with an accurate cost of structural alternatives. The RSEIS appears to indicate that in spite of significant federal agricultural support in the project area, additional agricultural intensification is needed. Unfortunately, the proposed project would result in substantial, irreversible losses of nationally significant fish and wildlife resources. Therefore, the Department recommends that the Corps rigorously evaluate other economic opportunities that are largely compatible with the area's hydrology and will maintain the ecologic integrity of the project area. This should include incentives/assistance in developing floodplain-compatible "industries," such as reforestation or ecotourism, wetlands mitigation banking, and site-specific structural measures to ensure public safety (e.g., highway upgrades, interior municipal drainage improvements, etc.). In addition to potential economic

white bass can be seasonally abundant in the floodway, preferred spawning habitat is not available in a backwater environment. Even if white bass are spawning in the floodway, egg survival is probably low because of stagnant conditions that reduce aeration of developing embryos, lack of stable substrates, and high predation rates. Therefore, mitigation of white bass spawning habitat is not justified based on reproductive requirements of this species

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28. Regarding the management of 6,400 acres for waterfowl, the Corps has consistently stated that resource managers may use flexibility in management of impounded areas and, if desirable, may leave gates open for connectivity. Benefits are based on analyses performed by the USFWS. Benefits are based on holding water over a maximum area; however, it is clear that water may be manipulated to various levels depending on desired management outcomes. In any case, waterfowl will show an overall gain due to project implementation because of the ability to manage the water level on bottomland hardwoods and cropland for winter waterfowl. This capability for management is not available under existing conditions. This does not include the additional gains that will be provided by the mitigation measure to reforest flooded agricultural lands.

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29. The acreage figures described (55,000 acres in the St. Johns Basin and 75,078 acres in the New Madrid Floodway) simply identify the maximum acreage that could have some level of flood damage reduction from the flood control features included in Phase 1. Clearly describing the maximum area of potential impact from an array of authorized features that are considered in a document does not reflect preselection of a plan. In order to select a plan for implementation, there must be a Federal interest, i.e., its economic benefit should offset its cost and thus produce a net positive economic gain to the nation. If as the Service suggests, the purpose was redefined as flood reduction with no benefit-cost constraints, then any level of flood protection could be arbitrarily selected. However, the laws and regulations governing the Corps participation in water resource development projects prohibit this. Further, the Corps considered all Service recommended alternatives and they all failed to meet the flood control objective of the authorized project.

The Corps believes the Service's statement "...the draining of which would appear to be at odds with recent federal policies" is misleading. The project is a flood control and protection project, and it specifically reduces the duration, extent, and frequency of headwater and backwater flooding. The lands the Service describes as being drained are drained under existing conditions except when they are inundated by headwater or backwater flooding. If they were not already drained as described, it would not be beneficial to irrigate these lands as indicated by the number of irrigation systems that are utilized in the area. The primary project impact is from reducing backwater flooding and evacuation of impounded headwater flooding.

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30. The project's purpose is flood control. The National Economic Development (NED) plan is not developed based solely on the economic goals of the East Prairie EC. The NED plan is based on maximizing net project benefits to the Nation as a whole, not just a single community. Also, the factors listed by the Service to be considered further, have in fact been fully considered and analyzed just as the Service had previously requested

Contrary to the Service's assertion, agriculture can be and often is quite compatible with other floodplain activities. Also the other activities suggested by the Service were fully investigated in the array of alternatives. For a detailed description of the benefits and costs of these activities, please

benefits from hunting leases, timber income, tourism, carbon sequestration banking and nutrient reduction, such alternatives could greatly reduce compensatory mitigation needs, which may be substantial, while achieving the goals of Executive Orders 11988 and 11990 and conserving a nationally significant and sustainable floodplain ecosystem for fish and wildlife.

RSEIS-S6, Section S.3.5: The Service believes that the Corps' 404(b)(1) analysis is inadequate because it does not fully define or evaluate the indirect and cumulative effects of project implementation on wetlands and aquatic life. The final document should include a rigorous evaluation of such effects.

RSEIS-S6 & S7, Executive Orders 11988 and 11990: The text should clearly reflect the Service's findings, as a cooperation agency, that the preferred alternative is not consistent with either executive order. As currently written, the text presents compliance with the executive orders as fact rather than as the Corps' opinion. In developing fisheries mitigation recommendations, the Service's rationale for compensating for the loss of rearing acres was, in part, that those areas are also critical for fisheries via primary and secondary productivity. Although compensating for rearing acres comes closer to meeting that need, numerous other wetlands functions were not quantified, nor has compensation for losses of those functions been developed. In addition, this section does not reflect the Service's findings that many acres will no longer meet the criteria for jurisdictional wetlands due to project implementation. The Service's rationale has been detailed in its Planning Aid letter report and FWCA report, as well as in our comments on the Final SEIS. The Service's conclusions should be clearly reflected in the Summary, particularly because some readers may rely on only the Summary and not complete the remaining chapters of the RSEIS.

RSEIS-S8, paragraph 2: This section does not accurately reflect the Service's analyses and determinations detailed in its FWCA report and Planning Aid letter report, nor the Department's comments on the Final SEIS, regarding post-project wetland conditions. In addition, this paragraph is an example of the difficulty in understanding the benefits of this project. On the previous page, the Corps states that much of the farmed wetlands receive frequent summer irrigation. However, this section states that much of the project area will remain saturated during much of the growing season and provide reduced wetland functions. The text should explain why one would need to irrigate land that is saturated and performing wetlands functions.

refer to the analysis of Alternatives 4 and 9 of Appendix B. The factors cited by the Service are included generally in the analysis of these alternatives. Regarding price support payments, these have an effect on the pricing levels used in all analysis. Regarding disaster relief, no benefit is claimed from disaster relief payments because these are payments made to compensate farmers for losses, which are accounted in flood damages prevented in the Corps analysis. Crop insurance is a factor of production reflected in the farmers operating costs (which are incorporated in the analysis). The economic valuation of fish and wildlife resources is addressed in the Alternative 9 discussion in Appendix B. Regarding the conversion of agricultural land to mitigation land, an economic costs is incorporated in the analysis by the very cost of implementing the mitigation plan. Unfortunately these alternatives produced more annual cost than benefit. As such there could be no Federal participation in them.

Finally regarding the Service's mention of potential carbon sequestration and nutrient reduction benefits. It should be recognized that none of the studies previously cited by the Service, contained a true benefit to cost analysis of reforestation as a means to produce these byproducts. Instead, they merely assumed that this was a noble and worthwhile goal (which it may be) and then proceeded to conduct a least-cost analysis of two ways to achieve these benefits. All that can be truly concluded from the studies is that reforestation is a cheaper way to achieve carbon sequestration and nutrient reduction benefits for an agricultural area than by building treatment plants similar to sewage treatment facilities to treat a city's effluent.

31 31. The 404(b)(1) evaluation has been expanded to more fully address these areas.

32 32. It is the Corps' responsibility to address compliance with these executive orders and it is the Corps' opinion that it has complied with both. Stating other's opinions on every issue would be untenable. Service positions are well documented not only in this comment letter, but also in the CAR and throughout the Draft and Final RSEIS. Regarding comments on mitigation and impact analysis, the Corps worked with USFWS and others to use the best available methods to assess impacts and to determine mitigation. There was originally a significant difference of opinion regarding the amount of mitigation to fully compensate significant fish and wildlife losses. After much debate and discussion, the Corps agreed with USFWS that it would adopt the USFWS' higher numbers because of uncertainties related to peripheral impacts, i.e., other wetland functions. USFWS agreed at that time that use of the higher numbers would satisfactorily compensate project-induced losses. Also, see Response #18.

33 33. Section S-3 of the Summary is the Corps presentation of "Major Conclusions and Findings" that the Corps established through the development of the document. As such, the paragraph referred to in this comment is complete and adequate. Since the Corps disagrees with the Service analyses or the Service determinations regarding post project wetland conditions (See response to DOI comment #25), the Corps has not presented the Service opinions as a conclusion or finding in this particular section. However, the Service position is described in Section S-4 and in particular Sections S-4.1 and S-4.2 regarding the post project effects to forested wetlands being cleared and the loss of farmed wetlands. The primary benefits of the project are related to a reduction in backwater flooding. Saturation levels will not be affected by project implementation. Many croplands that are saturated during the spring and early summer due to high Mississippi River stages and plentiful rainfall will require summer irrigation due to the loss of saturated soil conditions from reduced rainfall, lower Mississippi River stages, and higher temperatures that historically occur during summer months. Irrigation provides the necessary moisture to maintain the health of the crop to produce a profitable yield. Croplands are not irrigated during periods that sustain saturated soil conditions.

RSEIS-S8, paragraph 3: The Service's FWCA report documents the habitat losses and potential habitat value that could be realized through compensatory mitigation measures. As previously stated, fisheries mitigation measures were based on a portion of the spawning/rearing period and, while maximizing potential benefits to numerous species, are unlikely to benefit species such as the white bass or replace the hydrologic and topographic diversity that supports the diverse fauna currently found in the project area. In addition to the inherent limitations of compensatory mitigation (even if properly implemented), the Corps has not demonstrated that appropriate lands (i.e., with the necessary hydrology) are available, which brings into question the feasibility of the mitigation plan. The final document should present an assessment of both the limitations and feasibility of the proposed mitigation measures.

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34. Mitigation targets species that require inundated floodplain habitats for spawning and rearing. As stated in response #27, white bass do not conform to this reproductive strategy. In addition, white bass are widespread and abundant in the Mississippi River system, and there is no indication that population integrity is limited by spawning habitat. Mitigation addresses species that require shallow, periodically inundated areas for successful reproduction, not species that normally spawn in flowing water over gravel substrates.

In terms of the adequacy of the mitigation plan, please see Responses #7, #15, #16, and #23.

RSEIS-S9, Section S.4.1: Please refer to our previous comments on RSEIS-S1, paragraph 2.

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35. Please refer to Responses #25 and #26.

RSEIS-S9, paragraph 5: This section should indicate that the Service continues to believe that much of the wet cropland area would lose wetland hydrology and functions. Again, the question arises regarding project benefits if the areas under consideration retain their current wetland hydrology and functions.

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36. The requested statement is expressed in the first sentence of the section.

RSEIS-S9, paragraph 6: In conversations with Corps staff, the Service has expressed concern regarding the difficulty in trying to quantify nutrient, pesticide, and sediment behaviors given existing information. It is particularly frustrating in regard to farmed wetlands, where such processes generally have not been studied and which make up the majority of the land affected by the proposed project. Because of those data gaps, the validity of the assumptions for farmed wetlands used in the analyses is unknown, as is the sensitivity of the model to detect changes in land use (e.g., crop changes, double cropping, and land clearing). While we believe the Corps has made a good faith effort to evaluate project impacts on water quality, unfortunately, the results of that evaluation are extremely limited and speculative because water quality data and quantitative ecologic function parameters for the study area are not currently available. These limitations and uncertainties should be detailed in the final document.

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37. Farmed wetlands do not make up the majority of land affected by the proposed project. Refer to Table S-1 for the total area of land affected by project, which is about 75,000 acres for the floodway and about 55,000 acres for St. Johns Bayou. As Table 4-1 and 4-2 present, the maximum affected farmed wetlands are 3,514 acres for St. Johns Bayou Basin and 6,186 acres for the New Madrid Floodway. Please also refer to Appendix A, figures 8 and 9. These figures clearly indicate that farmed lands, albeit not farmed wetlands, make up the vast majority of area affected by the project. The Corps believes that reasonable assessments of water quality and ecologic functions have been made.

RSEIS-S10, Section S.4.3: Although the project area supports many common fish and wildlife species, much of the value of the project area is due to the habitat the area provides for numerous regionally rare species (e.g., skipjack herring, paddlefish, etc.), as enumerated in the Service's FWCA report. The text should be revised accordingly.

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38. The area above the levee closure does not provide optimum habitat for skipjack herring and paddlefish. Skipjack herring are generally found in rivers where they migrate great distances. Similarly, shallow, inundated floodplains are not preferred habitat for paddlefish. Paddlefish generally occur in deeper backwaters, which in the project area are located at the lower end of the basin or in the outlet channel itself. These locations will not be affected by levee closure. Other "regionally rare species" were not identified in the USFWS letter, but periodically inundated agricultural fields are not likely to harbor many rare or sensitive species. It's likely that some of these species may prefer wetlands, and most wetland fishes that have been documented in the project area are relatively abundant in St. Johns Basin and either absent or rarely encountered in New Madrid Basin.

RSEIS-S11 & S12: Please refer to our previous comments on RSEIS-S5, paragraph 5, regarding project purpose and economic development. The RSEIS appears to indicate that in spite of such agricultural support in the project area, additional agricultural intensification is needed. On page S-9, it is indicated that this "might" be realized by a "5 percent increase in corn planting and a slight change to a higher yield/longer season soybean variety." Unfortunately, the proposed project would affect the last remaining floodplain tributary complex in Missouri that is still connected to the Mississippi River, resulting in substantial, irreversible losses of nationally significant fish and wildlife resources. Therefore, we recommend that the Corps rigorously evaluate other economic opportunities that are largely compatible with the area's hydrology and will maintain the ecologic integrity of the project area. This should include incentives/assistance in developing floodplain-compatible "industries," such as reforestation or ecotourism, and site-specific structural measures to ensure public safety (e.g., highway upgrades, interior municipal drainage improvements, wetlands mitigation banking, etc.). In addition to potential economic benefits from hunting leases, timber income, tourism, carbon sequestration banking and nutrient reduction, such

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39. The Corps has evaluated an array of structural and nonstructural alternatives and has recommended the alternative that best meets the needs of the project area, in accordance with Corps policy in guidance. Refer to Response #29.

alternatives could greatly reduce the need for extensive compensatory mitigation which may be substantial, while achieving the goals of Executive Orders 11988 and 11990 and maintaining a nationally significant and sustainable floodplain ecosystem for fish and wildlife.

RSEIS-page 3, Section 1.6: In light of the last three years of Service input on fish and wildlife resources, including information concerning the importance of natural backwater flooding and riverine connectivity in the project area and the resulting diversity of fish and wildlife, this paragraph is truly mystifying. Not only is it erroneous and misleading, it completely discounts the environmental analyses of the Corps, the Service, and MDC. The final document should either delete the third sentence or revise it to indicate the significant fish and wildlife losses that will result from levee closure and pump operations as documented in the Service's FWCA report.

RSEIS-6, paragraph 2: This section should note that the Corps has agreed to construct a low-water weir in the St. James Ditch to prevent dewatering of the Lee Rowe Ditch, thereby reducing impacts to the diverse mussel fauna in that ditch.

RSEIS-6, Section 2.3.2 (New Madrid Floodway): This section should note that the alternatives under consideration would require up to 200 acres of borrow area. Because the location of borrow areas is unknown, environmental and economic impacts are also unknown.

RSEIS-9, Section 2.4.2: See our previous comments on RSEIS-S5, paragraph 5, regarding project purpose and economic development goals of East Prairie. Again, it is not clear what "frequent flooding" refers to or the desired level of flood protection, both of which should be clearly described in the final document. On the previous page, the Corps acknowledges that internal drainage improvements could relieve flooding in East Prairie, although such measures are not part of the current proposal. In conversations with staff of the City of East Prairie, the Service understood the city's greatest concern was protection from flooding of the kind that happened twice in the last twenty years. The Department continues to support measures that more specifically address such flooding problems in and around East Prairie while avoiding significant negative impacts to fish and wildlife resources.

RSEIS-10, Section 2.4.5: Land uses compatible with current hydrology in the project area would not require the same level of flood protection. Please refer to our previous comments on RSEIS-S5, paragraph 5, regarding non-structural alternatives. Although the Corps notes that landowners in the project area have shown little interest in the Wetlands Reserve Program, it is likely that such low interest is due to landowners' anticipation of agricultural drainage benefits from the proposed project.

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40. This paragraph is entitled *Other Potential Benefits*. It merely points out that a closure and gates afford an opportunity to manage water, especially in the winter waterfowl season, that is not currently available without a closure and gated structure.

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41. This is noted in the Final RSEIS in Section 7.2.1, and in particular the response to recommendation 1c.

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42. The location of material for construction of the floodway closure and a grade raise on about 12 miles of the setback levee has been addressed in Section 2.6 Preferred Plan.

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43. Again, the project purpose is clearly flood protection as stated in the SEIS. A preconceived level of flood protection cannot be chosen as suggested by USFWS. This would constitute pre-selection and arbitrary bias toward one particular alternative. Instead a full array of alternatives must be equally investigated and the results presented for informed decision-making. When all alternatives have been fully analyzed, the plan that maximizes net positive economic contributions to the Nation must be identified as the NED plan. The Corps recognizes the Service's concerns with respect to basic issues such as the post project wetland conditions and the biological significance of the floodway. And the Corps as taken many steps to minimize and avoid impacts, as well as provide compensatory mitigation for impacts that are unavoidable. This is discussed at a general level in the response to DOI comment #1. The plan that best meets the majority of the competing interest's goals was chosen as the preferred or recommended plan.

Frequent flooding that was used for impact calculation was a two-year flood event. The corresponding water elevations with respect to pre- and post-project conditions for a two-year flood are described in Appendix C. There is some flood damage reduction afforded the people and agricultural interests in the project area for all floods with the project, not just the two-year flood.

USFWS concerns regarding the City of East Prairie's flood problems are noted (See Responses 19 and 30). However, alternatives addressing only East Prairie's problems were found to have costs that far outweighed their benefits (please see Alternative 4 of Appendix B). A project cannot be recommended for construction if its costs outweigh its benefits, unless additional intangible benefits are produced that are unquantifiable but highly attractive and desirable.

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44. Please refer to response 30 regarding nonstructural measures. The levee closure has been authorized since the Flood Control Act of 1954, a time period of approximately 50 years. The pumping station has been authorized since the Water Resources Development Act of 1986, a time period of approximately 16 years. If project construction began today, project benefits would not be realized for 5 to 6 years. Anticipation of project benefits has not precluded the local landowners from enrolling in WRP or CRP. Instead this preclusion is due to the highly productive nature of the area's fertile agricultural lands. Conversion of these lands from agricultural production would not be profitable even with WRP or CRP incentives.

The Service statement "...due to landowners anticipation of agricultural drainage benefits from the proposed project" is assumed to be a reference to benefits from agricultural intensification. If this assumption is accurate, then please refer to the response to DOI comment #18.

RSEIS-15, Section 3.3: To provide the reader some context for the significance of the agricultural land affected by the project, it would be helpful for this section to include a discussion of that area as a percentage of all agricultural land along this reach of the Mississippi Alluvial Valley, similar to the discussion of floodplain area affected (page RSEIS-65). We note that the agricultural land benefitted under the two-year flood plain in the St. Johns Basin is approximately 0.97 percent and in the New Madrid Floodway is 9.3 percent of the agricultural land in those basins respectively (Table 3-1).

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45. The percentages calculated by USFWS in this comment are not in agreement with values calculated by the Corps. The total agricultural drainage area in both basins is approximately 393,000 acres. Flood control benefits accrue on all agricultural lands that experience backwater flooding. Benefits decrease for those low-lying lands that will continue to be frequently inundated and those higher lands that experience backwater inundation on an infrequent basis. In total, approximately 148,000 cropland acres, or 38% of the total agricultural land in the drainage basins receive some benefit. The Corps cannot determine how the Service derived the percentages listed in this comment. Please refer to DOI comments response #98 for more information on how damages occur to lands above the two-year flood elevation.

RSEIS-16, Section 3.6: Although highly altered, the New Madrid Floodway provides the only tributary floodplain complex in this reach of the Mississippi River that is still connected to the river. In addition, it is the only significant off-channel habitat available at high river stages. This section should be revised in the final document to reflect that importance.

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46. Please refer to Response #2. The Final SEIS has been updated to reflect the major, non-batture areas that experience backwater flooding from Cape Girardeau south to the mouth of the Hatchie River.

RSEIS-20, bottom paragraph: The Bootheel of Missouri differs from the rest of the State in many ways. Similar to the comparisons made for the environmental resources, we recommend that the project area be compared to other Lower Mississippi Valley agricultural counties that are likely to provide a more appropriate context of regional land use and socioeconomic conditions. The text should note that farm consolidation and declining agricultural income appear to be national trends, not necessarily a product of regional hydrology. Please refer to the Service's recent Planning Aid letter report for information on the economic benefits from fish and wildlife-related activities in the Bootheel that should be included in the final document.

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47. Although there are similarities to other Lower Mississippi Valley agricultural counties, the project area contains a unique combination of socioeconomic resources and opportunities. The project area conditions are the appropriate basis for analysis of potential project impacts. The study area farmers make decisions to maximize their net farm incomes given their unique economic circumstances, i.e., soil types, frequency and magnitude of potential floods, availability of qualified work force, proximity of commodity markets, array of transportation options, etc. While the frequency and magnitude of potential flooding will change with the project, the project will have no affect on other conditions unique to this area. Most other areas have already been provided greater levels of flood protection than the farmers located in the study area have under existing or with project conditions. While USFWS is correct regarding the recent trend in farm consolidation and declining agricultural income, net farm income can be increased by providing flood protection from the economically devastating floods that occur within the study area. Additionally, the economic benefits from fish and wildlife-related activities have been addressed in Alternative 9.

RSEIS-23, Section 4.3.1, paragraph 1: The final document should explain how the analysis of potential impacts to wetlands as a result of hydrologic modifications can be limited to 300 feet NGVD and below, yet urban and agricultural lands above that elevation (e.g., East Prairie) will receive benefits from reduced flooding.

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48. Project area wetlands above 290 feet NGVD exist because of factors other than headwater or backwater flooding. Thus, wetlands above this elevation would not be adversely impacted by project features that reduce flood damages. See Response #98.

RSEIS-31, paragraph 5: The text should be revised in the final document to note there is no information to support speculation concerning the rate of mussel recruitment after previous maintenance dredging of project-area ditches.

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49. Concur. Speculation regarding the rate of recruitment will be not be made in the Final RSEIS.

RSEIS-33, paragraph 2: The sicklefin and sturgeon chubs are no longer federal candidates for listing under the Endangered Species Act.

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50. Concur. Text will be changed accordingly.

RSEIS-35, paragraph 3: MDNR's water management plan is designed to retain *existing backwater*, in addition to runoff, in an attempt to counter localized drainage that has negatively affected park habitat value. Please revise the text accordingly.

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51. See attachment 2 to Appendix L. Under existing conditions, the Park has been unable to capture existing backwater due primarily to a notch in the rim of the park sump. Text will be revised to state what is occurring under existing conditions.

RSEIS-36, paragraph 1: Please note our previous comments on RSEIS-S9, paragraph 5, regarding project impacts to water quality and revise the document to include the Service's determinations regarding water quality assessment and impacts.

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52. The two sections described do not appear to be related. If paragraph 6 (not paragraph 5) was intended please refer to Response #37.

RSEIS-38, Section 5.1 (Environmental Consequences, Agricultural Land): This section is particularly confusing. It is not clear which area will receive what level of protection from flooding and which figures were used to estimate agricultural benefits. In Table 5-2b, the affected agricultural acres within the two-year floodplain are 10,319, most of which are functional wetlands. However, in Table 5-2, the greatest difference in monthly average acres flooded is less than 1,000. The text should clearly explain how changes in hydrology will

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53. This section is not meant to provide a basis for generating an estimate of agricultural benefit. The methodology for generating an estimate of agricultural benefit is provided in Appendix B for two distinct types of agricultural benefit on pages 6 through 14 (Sections c. Agricultural Flood Damage Prevented through Table 9. Agricultural Flood Damage Prevented) and pages 14, 15 and 16

affect agricultural land (and land practices) in the project area to allow the reader to better understand the rationale used to determine benefits and effects for each alternative.

(Agricultural Intensification Benefits). These two distinct agricultural benefits arise from the avoidance of crop damages due to flood damage and a much smaller component from crop practice intensification. Agricultural intensification essentially means growing more costly, yet more profitable crops such as rice, cotton, and corn rather than soybeans.

With regard to confusion between Tables 5-1 and 5-1b and 5-2 and 5-2b, the tables do not represent comparable values. Monthly mean water elevations (Tables 5-1 and 5-2) are not a reflection of a flood event. They are a numeric average water elevation in the basin during the month in question over the entire period of record. The two-year flood (Table 5-1b and 5-2b) looks at the highest elevation taken during each entire year over the period of record and establishes the expected flood elevation for a flood event that is expected every other year. Therefore, the two-year flood event, which may only reach that particular elevation for one day every two years, will certainly be much higher than the monthly means.

RSEIS-40, Section 5.1.4: The text should clearly describe the anticipated impacts to agricultural land. This paragraph mentions farming difficulties associated with saturated lands when the pool elevation is 284.4 feet NGVD, and yet, the previous page indicates that the monthly average elevation for May is 280 feet NGVD and the monthly median elevation is 278.9 feet NGVD. As part of a more comprehensive description of post-project conditions of agricultural land for each alternative, the text should clarify how often such water levels would result in problems for farming. This would allow the reader to better understand and compare project impacts among the alternatives.

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54. Comment noted, Section 5.1.4 will be clarified. The clarification to the second paragraph will be to mention that if the river stage approached 284.4 in May up to May 15, farming could be inhibited until the water could be pumped down. Please refer also Response #53.

RSEIS-42, paragraph 1: This section should incorporate more recent information (post-1989) on land clearing in the project area. On page 27, paragraph 4, the text notes that NRCS has received recent requests for wetland determinations on forested tracts. It would be helpful to quantify such information in the final document.

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55. The Geographical Information Systems (GIS) survey data used in all Corps calculations were obtained from aerial photography accurate to within one-foot contour intervals. This data was collected in 1995.

Nine requests have been made during the last three years for the NRCS to perform wetland determinations. Of these nine, one was a farmed wetland, seven were wooded wetlands, and one was a non-farmable cleared area. In all nine cases, these areas had been determined by NRCS to be wetlands and all retained that wetland status after determination. The document will be updated to reflect this.

RSEIS-42, paragraph 2: The Service is not aware of any environmental review of the recently constructed levee along the Wilkerson Ditch, which the text indicates may have a significant effect on local hydrology and may affect a National Natural Landmark. This is the first instance in which the Corps indicates that this structure would significantly affect aquatic habitat value in the project area. If that is the case, the RSEIS should clearly explain how those effects were incorporated/considered in the environmental and economic assessment of each project alternative.

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56. The levee to the east side of Wilkerson Ditch is documented in the SEIS but it is not the only private or non-federal levee in the project area. The Wilkerson Ditch levee was considered in a qualitative manner during the development of the SEIS. The impacts of the Wilkerson Ditch levee on natural resources, and in particular on Big Oak Tree State Park, were specifically acknowledged. However, hydraulic analysis previously performed indicates that agriculturally beneficial effects are limited to a few flood events that are of short duration coupled with limited or no interior water. This is because the levee has gated outlet culverts but no way to remove interior water when backwater is higher.

Regardless, the levee and other interior levees could all have some limited effect on localized hydrology in the project area. Because of deficiencies in construction and/or maintenance of interior levees, these levees are not expected to have a long-range effect on the project area. They are at best a short term solution to local flooding and will not be needed after project implementation.

SEIS-43, paragraph 3: See immediately preceding comment. The document should describe the incremental effects of pump operations, the levee closure, and the Wilkerson ditch levee on this area.

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57. Please refer to Response #56.

RSEIS-43, paragraph 4: The Service's determinations of post-project forested wetlands are based on historic land use and *project-related* hydrologic changes. The text should be revised to reflect this. Please refer to our previous comments on RSEIS-42, paragraph 1, including the need for more recent information on forest trends in the project area.

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58. Noted. The document has been revised as requested.

RSEIS-44, paragraphs 1-3: The section again refers to the determination that wetlands will remain saturated post-project. The final document should identify that position as the Corps' opinion, rather than as fact, and adequately disclose the uncertainty of that opinion. In addition, this section, as well as those that follow, should accurately reflect the Service's

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59. The information presented in the SEIS related to future hydrologic conditions represents the best estimates based on the data available and the expertise of the professionals who conducted and reviewed the analyses. Please refer to Response #25.

findings regarding this issue. Please refer to our previous comments on RSEIS-S1, paragraph 2, and the Service's FWCA report.

The Service notes that recent court decisions have limited the Corps' oversight of various activities that would drain certain wetlands. In addition, the discussion of Swampbuster should note that under existing legislation, farm assistance programs are to be phased out by 2002, which will eliminate the disincentives to clear forested wetlands for farmers who participate in those programs. The text should further note that a recent U.S. Department of Agriculture publication (Heimlich et al. 1998) cited in the Service's FWCA report predicts that once those programs are no longer in place:

"5.8 to 13.2 million acres [of wetlands] would be profitable to convert to agricultural production based on expected prices, increasing income for those farmers with wetlands to convert. In the long run, some marginal cropland would drop out of production, leaving a net cropland addition of 2.2 to 5.0 million acres. Increased commodity supplies from the added acreage would depress commodity prices for all farmers, resulting in reductions of farm income of \$1.6 to \$3.2 billion."

Not only will wetlands likely be converted to agriculture, but increased commodity supplies would decrease farm income at the national level. The Corps' assertion that increased commodity production in the project area would translate into national economic development benefits (NED) appears to be at odds with the results of the recent USDA study.

RSEIS-46, Section 5.3: Please refer to our previous comments on RSEIS-S1, paragraph 2, regarding post-project development of forested wetlands. This section should clearly describe and compare impacts to wetlands from each alternative, but instead only refers to acreages of unquantified, reduced inundation. The final document should include a comparative, meaningful discussion of project-related effects (and their significance) of each alternative on the various wetland functions in the project area.

RSEIS-47, paragraph 6: Although the Service has noted the decline of project-area forests due to previous hydrologic alterations, it has not recommended the implementation of "water control programs" *per se*. Rather, it has advocated reduced water control (i.e., reliance on natural water level fluctuations and connectivity) in the basins to benefit stressed forested wetlands. Please revise the text accordingly.

RSEIS-48, paragraphs 4 & 5: The text should clarify how non-agricultural wetlands will retain hydrologic conditions sufficient to retain their jurisdictional status after project implementation, yet many farmed wetlands are likely to lose those characteristics due to project-related drainage.

RSEIS-49, paragraph 2: The text should describe to what extent the park would experience backwater flooding and how that would affect wetlands in the park, as well as the habitat value for which it was designated a National Natural Landmark. At a minimum, water chemistry, nutrient cycling, and organic matter export/import will be greatly modified once the park is no longer connected to the surrounding ecosystem. In addition, hydrologically separating the park from the adjacent landscape will also reduce, and in some cases eliminate, habitat values for park wildlife and fisheries.

RSEIS-49, paragraph 4: This paragraph should note that the mitigation plan is designed to *compensate* for project-related habitat losses. We believe the NED alternative will eliminate wetland functions and hydrology on many forested tracts which will likely be converted to other uses as a result. In addition, to date, project impacts to several ecologic wetland and floodplain functions (e.g., water quality, nutrient cycling, detrital import/export, floodwater storage, and habitat for reptiles and amphibians) have not been quantified, nor has mitigation been proposed for those losses. Please revise the text accordingly.

- 60 60. Given today's and projected near-term economic conditions, the position taken in the SEIS is that the area's land use is at equilibrium. As shown in the analysis of Alternative 9, it is not profitable to reforest cropland. Also, given today's depressed farm prices (also noted by the Service) and higher timber prices, it is not profitable to clear existing woodlands.
- 61 61. Please see Response #25. Additional information regarding affected acreage has been added to the final RSEIS.
- 62 62. Noted, text revised as requested.
- 63 63. Saturation requirements for the two habitat types are different. Please refer to Response #2 and Response #25.
- 64 64. Project related impacts to the Park and measures to improve the habitat of the park are discussed throughout the report. Some of the key references are in Sections 2.1, 4.3, 4.9, 5.2, 5.3, and 5.9. Additionally, the water quality appendix specifically addresses the Park as does an addendum to the mitigation appendix.
- 65 65. The text has been revised as recommended in the first sentence. Also, refer to Response #18 and #26.

RSEIS-49, paragraph 5: The Service and the Corps have worked hard to try to address impacts to trust resources from project implementation. Unfortunately, most of the Service's concerns regarding project-related impacts to wetlands remain and should be included throughout the document to accurately reflect the Service's input as a cooperating agency.

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66. It is noted that many of the Service's concerns remain and the Corps believes that the Service's concerns are noted appropriately throughout the document as well as in this letter, which is included in a report appendix, and in the Service's final CAR.

RSEIS-51, Section 5.4: This section is misleading in that it fails to report the largest project-related losses of wildlife habitat, namely indirect effects to project-area forests due to the likely clearing of these areas once the project has reduced the frequency and duration of flooding. At a minimum, the document should include the Service's complete HEP results to date. (We understand that in spite of a request by the Service in their scoping comments, the Corps failed to conduct similar HEP analyses of indirect effects for the alternatives under consideration in the RSEIS.) Furthermore, the Service has documented in great detail the importance of hydrologic, topographic, and vegetative variability throughout the project area as critical to sustaining such a diverse fauna. Contrary to the Corps' contention that wildlife would benefit by further wetland drainage and agricultural intensification, results of the HEP analyses for alternatives 2 and 3-1.A indicate indirect habitat losses from such alterations will be up to 100 times those from levee construction and channel enlargement. We are extremely disappointed by this significant omission of both the project evaluations and the Service's previous resource input. These omissions should be rectified in the final document.

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67. The section is in no way misleading and goes to great lengths to point out the difference in analysis between the Corps and the Service. This difference is also noted in the "Areas of Controversy" section of the RSEIS, within the CAR, and elsewhere. As stated in response to several other Service comments (please refer to Response #26) induced woodland losses are not likely to occur based on Corps hydrological analysis of the post-project area and other factors. It would not make sense to report indirect impacts from induced clearing for all alternatives when our analysis indicates that such impacts would not occur. However, for the final RSEIS, more information has been added to Section 5.4 wherein information is taken directly from the draft CAR to explain the rationale for the Service position, habitat losses associated with induced losses, and the Service's recommended compensation measures. The section also points out that the information is presented in the interest of full disclosure even though the Corps does not concur with the Service's determination. If clearing of wooded wetlands were to occur in the post-project environment, land owners would be subjected to the jurisdictional constraints of Section 404 and would have to provide substantial mitigation for such clearing. Also, and even though the Corps does not concur with the Service projection of induced losses, the proposed mitigation plan that the Corps has agreed to implement would fully mitigate such losses based on the Service's analysis.

RSEIS-52, paragraphs 1-3: As the Service has previously explained to the Corps, there are few HEP models for reptiles and amphibians. The marsh species group does not represent the needs of the herpetofauna. Therefore, project-related impacts to those species must be evaluated at a gross, qualitative level. The HEP models chosen for impact analysis are those believed to reflect the largest suite of species with model parameters that could be quantified with any level of confidence. This section should note that the original HEP team also agreed to the assumption that future with-project conditions would result in a predictable rate of forest clearing on private lands, resulting in significant losses of wildlife habitat.

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68. The Habitat Evaluation Procedures (HEP) team, of which USFWS was a part, agreed to those models that could best be used to measure project impacts and formulate mitigation. It does seem reasonable that proposed mitigation measures that include reforestation of agricultural lands and development of shorebird areas, not to mention significant additional avoid and minimize measures in the New Madrid Floodway, would be more desirable habitat for reptiles and amphibians than those lands which are driving mitigation; namely, agricultural lands that will experience a reduction in springtime backwater inundation but are also irrigated in the summer to maintain a crop. Regarding future land clearing, it was assumed very early in project planning that rates of clearing could be established based on past trends. However, further analysis of the hydrology of the area indicated that woodlands would still maintain saturation criteria for wetlands that would guard against their being cleared. Also, analysis of similar areas above the area of project impact, i.e., areas not subject to Mississippi River backwater inundation, showed similar woodland acres that had not been cleared. In summary, earlier assumptions regarding factors that would lead to clearing no longer seemed valid. In any case, as previously stated, proposed mitigation measures would more than compensate for the Service projected loss, and additional information is placed in Section 5.4 in the interest of full disclosure.

RSEIS-53, paragraph 4: The text should be modified to note that the direct losses shown in Table 5-3 and Table 5-4 are based on the HEP analyses which take into consideration the habitat provided by easements along the project rights-of-way.

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69. Text has been revised as requested.

RSEIS-55, paragraph 6: Please refer to our previous comments on RSEIS-49, paragraph 2, regarding the importance of backwater flooding to the ecologic values in Big Oak Tree State Park. In addition, this section is at odds with the Corps' assertion on page 42 that reduced backwater flooding would threaten the park's ecological integrity. The text should be revised accordingly.

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70. This section should have been worded to indicate that wildlife would be preserved with implementation of a water management plan for the park. Text has been revised accordingly.

We understand that the MDNR staff are working with the Corps to develop measures to ensure the health of the park. However, we believe that substituting a highly manipulated water delivery system via relief wells and groundwater for the naturally variable, backwater

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71. It may be desirable to draw from adjacent surface waters in addition to groundwater or relief wells. Regarding separation of the park from the adjacent ecosystem, it should be kept in mind that the

flooding regime presently existing in the park will not compensate for the loss of ecological functions associated with overbank flooding. Water chemistry, nutrient cycling, and organic matter export/import will be greatly modified once the park is no longer connected to the surrounding ecosystem. In addition, separating the park from the adjacent landscape will also reduce, and in some cases eliminate, habitat values for park wildlife and fisheries.

RSEIS-59, Section 5.5: Please refer to our previous comments on RSEIS-S1, paragraph 2, regarding the project-related effects on forested wetlands. Contrary to the text (page 59, paragraph 5), due to time constraints, the Waterfowl Assessment Methodology was used to evaluate only Alternatives 2 and 3-1.A. In addition, this section should clarify the intended gate operations during winter for each alternative to allow the reader to better understand project effects on resources in the sump areas. This section presents the Corps' projection of waterfowl benefits in the winter resulting from the impoundment of water in the lower basins. The Service finds these projected benefits to be questionable (see the Service's FWCA report for detailed comments). In other sections, the Corps refers to modified gate operations for waterfowl benefits. Those operations should be described in more detail in the final document.

RSEIS-60, paragraph 2: The text should note that the analyses for the Phase II GDM did *not* evaluate effects of the levee closure on the New Madrid Floodway. In addition, those analyses failed to use reliable, site-specific resource information to quantitatively analyze impacts to project-area fish and wildlife resource.

RSEIS-61, paragraphs 5 & 6: The text in the final document should reflect the Service's analyses of potential effects to waterfowl, as detailed in its FWCA report, and note the Service's opinion questioning the Corps' projection of increases in winter waterfowl benefits under the proposed pump scenarios.

RSEIS-62, line at top of page: It is unclear what is meant by the "preferred plan" since a selected plan has not yet been identified.

RSEIS-62, paragraph 2: Based on the Corps' information, there would be minimal waterfowl habitat inundated during March when stages are below 282.5 feet NGVD.

RSEIS-62, Section 5.6: This section should note that the fisheries HEP did *not* evaluate impacts of the levee closure but analyzed impacts based solely on inundation, season, and land cover. In addition, although the HEP quantified fisheries impacts within the two-year floodplain, this section fails to address the Service's scoping comment where it noted that the document should also include some analysis and discussion of project-related effects to fisheries habitat currently available during less frequent flooding (i.e., 5, 10, and 20-year events).

RSEIS-63, paragraph 3: The text should note that the estimates of available fisheries habitat under each alternative are based on an analysis of daily averages over the period of record. As is standard HEP practice, those number are then annualized. The two-year flood event was used to determine the geographic scope of the analyses, not to determine the number of flooded acres.

surrounding landscape is already a highly altered system that is causing problems for park management. The Corps believes believe that the water management plan being developed with Missouri Department of Natural Resources (MDNR) will result in an enhancement of existing conditions. Additionally, it is common practice for the resource agencies to manipulate water levels in conservation areas they manage, including isolating areas from outside floodwaters.

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72. In response to the first sentence, please refer to Responses #25 and #26. Regarding the statement that projected benefits are questionable, the Corps relied on USFWS analyses. Regarding gate operation for the 3-1A alternative, the Corps has stated that resource agencies will be given flexibility controlling winter water surface elevations for waterfowl. Water surface elevations could be controlled over the entire acreage, i.e., gates could hold water at a reduced level or, at other times, it may be desirable to maintain connectivity with the river. Alternatives carried through detailed analysis will be discussed in the final RSEIS to the extent information is provided by USFWS. If information is not provided, the Corps will describe impacts to the degree practicable. The original Avoid and Minimize Plan, Alternative 3-1.A, has a project benefit in total duck use days. The recommended plan, Alternative 3-1.B, has greater benefits and ameliorates springtime impacts by allowing more water up to elevation 284.4 through May 15 of each year.

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73. Noted, the text will be changed accordingly.

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74. Should USFWS Waterfowl Assessment Methodology (WAM) be modified to provide different projections, they will be incorporated in the RSEIS.

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75. The intended meaning was that waterfowl habitat and duck use could be increased through water level manipulation.

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76. Noted.

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77. Impact analysis included the loss of lands above the levee closure, despite a high probability that many species of fish can continue to spawn and rear in the sump behind the closure, and throughout the existing streams in the upper basin. High species diversity in St. Johns Bayou also indicates that most fishes will continue to maintain reproductive populations after the levee is closed. Thus, impact analysis was based on environmentally conservative assumptions including total loss of lands above the levee closure. In regard to flood frequency, the logic and justification of using a two-year flood event was provided in the SEIS and appendices. For any impact assessment, baseline conditions must be determined for the project life, which is 50 years in this case. Infrequent floods that inundate large areas do result in major spawning events, but flooding that occurs every 1-2 years generally regulates long-term population trends. Thus, the HEP Team agreed that frequent floods were more important than infrequent events when evaluating baseline population levels over a 50-year period. The two-year flood was based on a flood-peak analysis, so the upper end of the floodplain is not an average condition, but a maximum elevation over the period of record. Mitigation lands will be located in the two-year flood plain to ensure that fish will have direct and regular access to suitable spawning and rearing sites.

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78. To accurately portray biological responses of the fish community, the geographic scope of impacts must be based on floodplain hydrology and land use classification. The Corps used state-of-the-art GIS land use classification to define the boundaries of floodplain habitats, determined the extent of flooding on each habitat using hydraulic modeling techniques, and identified biological response of

RSEIS-64, paragraphs 2 & 3: Based on the information presented in the hydrologic appendix, the Service believes there may be adverse effects to fisheries because of seasonally reduced water levels in project-area ditches. The section should accurately portray the Service's concerns as detailed in its FWCA and Planning Aid letter reports. In addition, given the documented losses of fisheries habitat under future with-project conditions, the Service expects the fisheries to be negatively affected throughout the project area. Moreover, if fisheries compensatory mitigation measures are not implemented in the respective basins, there will be significant net losses of fisheries resources in the project area.

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79. The referenced paragraphs are describing impacts to wildlife and shorebird for Alternative 3-2.A. Impacts to wildlife with the Recommended Plan would be similar to the impacts with Alternative 3-2A , e.g., flooding of bottomland hardwoods will be reduced. Thus, more wildlife habitat will be available during annual flood periods.

Potential losses of fishery and shorebird habitat have been fully addressed. The start and stop pump elevations for the recommended plan will result in significant residual water in the lower reaches of channels in both basins. Operation to these elevations will result in portions of the system being slightly over bank full at the stop pump elevation during the crop season to potentially hundreds of acres during the fishery season. During the waterfowl season, operation of the gates and pumps can result in more water in the channels during low river stages than under existing conditions.

High fish species diversity in St. Johns Basin (Sheehan, 1998, Tables 22, 23, and 24) indicates that stream fishes are not necessarily impacted from levee closure. See response to DOI comment #8. In addition, the majority of fishes collected in the NMF ditches do not necessarily require inundation to complete their life cycle. Periodic access through the gate will provide some recruitment of Mississippi River fishes and headwater flooding will increase seasonal water levels. Taken together, these factors will reduce net losses. However, mitigation was formulated to offset any losses in the project area, and improve floodplain habitats adjacent to the Mississippi River. Most streams have no riparian vegetation, and along with bank instability, high sedimentation and turbidity reduce fish species richness in the NMF. Stream restoration in the form of buffer strips, bank stabilization, overall sediment reduction, and instream structures has been recommended to enhance recovery of aquatic systems in the NMF.

RSEIS-64, paragraph 6: Please refer to the Service's previous comments in its FWCA report regarding the importance of the project area to regionally scarce aquatic fauna. In addition, although the project area accounts for only a small part of the acreage of the two-year floodplain along this reach of the Mississippi River, the project area's hydrologic, topographic, and vegetative characteristics result in a documented flora and fauna unlike any other in the State, including other areas of the Mississippi River floodplain. Such characteristics cannot be modeled, yet are extremely important to the species that use this backwater area, all the more so during high river stages along batture lands. This should be reflected in the text.

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80. Noted, text has been modified accordingly.

RSEIS-67, Table 5-8: This table fails to report effects to fisheries during the early or late spawning/rearing season and should be modified to include those impacts in the interest of full disclosure.

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81. The HEP Team decided to focus on the period that represented maximum losses to fish habitat, which in the New Madrid Floodway is the mid-season rearing period. It was assumed that mitigating maximum losses would compensate for all other impacts. Although Habitat Units could be provided for all seasons and species in the interest of full disclosure, the Corps believes this would only complicate the document. The Corps stands by the decision to present the maximum possible impacts/losses along with the corresponding required mitigation, but not other lesser impact scenarios.

RSEIS-69, Section 5.7.2: The last sentence of the second paragraph should be revised to read: "The Corps believes there will be no long-term . . ." In addition to constructing the weir to prevent perching of the Lee Rowe Ditch, we recommend that the Corps agree to rectify unanticipated flow changes should they affect the mussel population as documented through the monitoring program.

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82. Regarding the first sentence of the comment, the paragraph deals with USFWS and Missouri Department of Conservation (MDC) views. It should be apparent that the referenced sentence states the Corps position. That the Corps be held responsible for any and all mussel population effect, is unacceptable. The Corps has committed itself to mitigate for project impacts to mussels. See Appendix L for mussel mitigation.

RSEIS-70, Section 5-8: This section on endangered species should be revised to reflect the events and chronology involving the consultation for this project under section 7 of the Endangered Species Act, as amended. The Corps requested formal section 7 consultation in its December 3, 1998 letter transmitting its Biological Assessment because they determined that there was a possibility that the project may affect the interior least tern and bald eagle. The Service's December 30, 1998, letter acknowledged receipt of the Biological

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83. This section has been revised as requested. Although an overview of Biological Opinion (BO) results are included in this section, the reader is referred to the Service's Biological Opinion for specifics regarding measures/terms and conditions.

Assessment and the Corps' request for formal consultation. The Service concurred that the project is not likely to adversely affect the pallid sturgeon. However, since the Corps had requested formal consultation, the Service proceeded to prepare a Biological Opinion stating that the project would not jeopardize the continued existence of the interior least tern and bald eagle. This statement in the RSEIS should be revised to include the Biological Opinion summary that discusses the reasonable and prudent measures/terms and conditions in the Biological Opinion to minimize incidental take for these two federally-listed species, and that the Corps plans to implement these measures.

RSEIS-74, Section 5.9 (Big Oak Tree State Park and other State Conservation Areas): It is difficult to compare effects of the various alternatives on these areas given the information provided. In this section, the text again refers to substantial effects of the recent Wilkerson Ditch on local hydrology, however, no such effects are noted in any other sections of the RSEIS. The final document should include a comprehensive analysis of those effects not only for the park, but also for *each resource category* similarly affected under both with- and without-project conditions. In addition, please refer to our previous comments on RSEIS-S1, paragraph 2, regarding post-project development of forested wetlands and revise the text accordingly.

RSEIS-76, Section 5.10 (Water Quality): In conversations with Corps staff, the Service has expressed concern regarding the difficulty in trying to quantify nutrient, pesticide, and sediment behaviors given the limited information presently available. It is particularly frustrating in regard to farmed wetlands, where such processes have generally not been studied and which make up the majority of the land affected by the proposed project. Because of those data gaps, the validity of the assumptions for farmed wetlands used in the analyses are unknown, and the sensitivity of the model to detect changes in land use (e.g., crop changes, double cropping, and land cleaning) appears to be unknown as well. While we believe that the Corps has made a good-faith effort to evaluate project impacts on water quality, unfortunately, the results of that evaluation are extremely limited and speculative because water quality data and quantitative ecologic function parameters for the study area are not currently available. These limitations and uncertainties should be acknowledged in the final document.

RSEIS-78, Section 5.11 (Recreation): This section should be revised to provide an economic analysis of the value of fish and wildlife-related industries in the project area, as the Service had requested in its scoping comments. The Service provided preliminary information on those benefits in its Planning-Aid letter report. In addition, the Service has previously documented the abundant and diverse fauna, including desirable game species, associated with forested wetlands. The current condition of game species in the project area is largely a reflection of long-term and widespread habitat degradation and conversion to intensive agricultural. It is the seasonal flooding that provides the majority of the wildlife habitat value remaining in the project area. The text should be revised to reflect the Service's resource input detailed in its FWCA and Planning Aid letter reports throughout this section. Furthermore, the text should note that the highly speculative nature of the proposed mitigation plan leaves a great deal of uncertainty regarding the extent to which habitat losses will be compensated and where.

RSEIS-84, Section 5.14 (Socioeconomics): Please refer to our previous comments on RSEIS-20, paragraph 5, regarding comparisons with other Lower Mississippi Valley counties, consistent with the evaluations of the environmental resources. As requested in its scoping comments, the Service believes the socioeconomic analyses should include economic consequences to agriculture and infrastructure from a given level of flood protection, as well as the effects of future fluctuations in agricultural prices on potential benefits of each alternative over the project life. In addition, some alternatives involve significant acres of

84 84. Please refer to Response #56.

85 85. Farmed wetlands do not make up the majority of lands affected by the proposed project. For the recommended alternative, farmed wetlands make up 6,186 out of a total of 75,112 acres below elevation 300. The overwhelming majority of croplands that will benefit from reduced inundation, 55,627 acres, are classified as prior converted croplands. Regarding adequacy of water quality analysis and assumptions in land use changes, the Corps has stated the basis of economic projections and described the studies used to perform evaluations. Inherently, a degree of professional judgment is used in interpretation of data and in cases where limited data or information is available. The Corps believes that it has adequately stated potential impacts related to water quality.

86 86. The economic value of the existing fish and wildlife related industries is incorporated in the valuation of real estate in the project area. This economic impact causes an affect to the cost of easements and mitigation in the project first costs for each alternative. For a more detailed explanation see the evaluation of Alternative 9 or any discussion about woodlands in Appendix B.

Regarding the existing negative impacts to local flora and fauna due to the intense agricultural practices in the project area, please refer to Response #7.

Regarding the "highly speculative nature of the proposed mitigation plan" as the commenter states, please refer to U.S. Environmental Protection Agency (EPA) Responses #13, #14, #15, and #16. In particular, with respect to the appropriateness of the measures to identify potential mitigation sites during the SEIS, the commenter should read the EPA Response #15. The Corps has identified ample mitigation lands and has stated the regulatory and scheduling requirements that must be adhered to during implementation of the project.

87 87. Please refer to responses 30, 44, 60, and 86. Appendix B evaluates an array of levels of flood protection. Appendix B also evaluates the tradeoffs of differing levels of mitigation versus levels of flood protection. Alternative 9 specifically addresses this comment's nonstructural concerns.

compensatory mitigation. Assuming appropriate sites could be found within the basins, the RSEIS should evaluate in detail how mitigation within the basins (which would involve withdrawing acreage from agriculture use) affects potential agricultural flood-control benefits. Any effects on local and levee district revenues should also be evaluated. In addition, this section should note the economics of fish and wildlife-associated activities in the project area. We believe discussion of the above factors would provide the reader with a better understanding of the benefits/effects of the each project alternative.

Regarding the comment on varying crop price levels, it should be noted that a risk analysis was conducted on the proposed project's benefits. Of the 7 key economic variables in the risk analysis, prices received by farmers for their commodities ranked number 5 (Appendix B, Table 9). The price level used in the economic analysis was 1996. The 1996 prices for most of the major field crops were the lowest of the last 8 years. Most of the project's agricultural benefits come from soybeans and corn. The prices for soybeans were \$6.23, \$6.14, \$5.95, \$5.94, \$6.15, \$6.39, \$6.67, and \$6.21 per bushel for the years 1993 through 2000. Quite obviously, the 1996 price of \$5.94 per bushel is the lowest. The same can be said for corn with prices of \$2.36, \$2.40, \$2.39, \$2.33, \$2.54, \$2.64, \$2.73, and \$2.52 for the same time period. Again, the 1996 price of \$2.33 is the lowest in the 8-year timeframe.

RSEIS-86, Section 5.16 (Mississippi River State Impacts and New Madrid Floodway Operations): This section provides a very interesting and helpful explanation of Floodway operations during a project flood. In addition to the comprehensive description of Floodway operations provided, the text should also note the effects of such operations on Floodway resources for each alternative as requested in the Service's scoping comments. In addition, this section mentions flooding easements to be purchased under various project alternatives. To better understand the impact of those easements, the document should discuss the extent of easements needed and how they were considered in the costs of the various alternatives. (We cannot find such an accounting in the economic appendix.)

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88. The comments regarding floodway operations are noted. Refer to EPA Response #26 for a discussion on the impact of flowage easements on the economics of the St. Johns Bayou and New Madrid Flood Control Project.

RSEIS-98, Section 5.17.3, paragraph 1: The Service continues to receive public notices for ditch enlargements and wetlands impacts associated with the Mississippi River Levee seepage control features that were not included in the larger NEPA reviews of those activities, essentially piecemealing the environmental reviews as well as methods to compensate unavoidable fish and wildlife habitat losses.

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89. The Mississippi River Levee (MRL) SEIS disclosed the overall scope of future items of work. However, at the time the MRL SEIS was written, detailed engineering designs were not available for every channel modification or seepage control feature that could be associated with the MRL project. These detailed designs can only be completed once the magnitude of specific problems has been determined and the location and footprint of corrective measures are calculated. The MRL SEIS disclosed specific detail on impacts to the extent such detail was known at the time with a commitment to prepare additional NEPA documents as such specific information was developed. That the FWS has received notices of and is involved in the preparation and review of such NEPA documents indicates that the Corps is fulfilling that commitment.

RSEIS-99, Section 5.17.3, paragraph 2: The text should be revised to reconcile the wetlands numbers in this section with those provided in the previous sections on wetlands impacts.

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90. Noted, incorporated.

RSEIS-99, Section 5.17.3, paragraphs 5 & 6: The Service has previously documented (FWCA and Planning Aid letter reports) its concerns regarding the appropriateness of locating compensatory mitigation lands for the proposed project along the Mississippi River batture. In its FWCA report, the Service detailed specific criteria for mitigation lands to adequately compensate unavoidable habitat losses. Consistent with Service policy, lands already dedicated to fish and wildlife resources (e.g., Wetlands Reserve Program easements; Partners for Fish and Wildlife lands; lands to compensate resource losses from previous federal projects or permits; and local, state, or federal wildlife conservation lands) would not be appropriate for compensatory mitigation. In addition, the Service's recommendations are designed to maintain both the habitat diversity and hydrologic equivalency of lands affected by the project. The importance of hydrologic equivalence in replacing ecologic functions is underscored by the National Academy of Sciences (2001) and other big-river ecologic research (Galat and Lipkin 1999, Galat et al. 1998, Poff et al. 1997, and Richter et al. 1998). For example, batture lands have been suggested as potential mitigation lands for this project. Aside from the fact that enhancement measures would provide little additional fish and wildlife benefit above existing conditions, both the hydrologic and temperature regimes of those areas differ significantly from those of the Floodway. Recent research (Schramm et al. 2000) suggests that such temperature differences may greatly influence the reproductive and recruitment success of riverine fishes, particularly those species that use the floodplain as spawning and nursery habitat. In addition, the hydrology found on much of the batture lands would likely make adequate reforestation, the proposed mitigation method, highly questionable. Therefore, the Service continues to object to the use of batture lands for compensatory mitigation to offset project-related impacts in the Floodway. The uncertainty surrounding the availability of suitable compensatory mitigation lands should be noted throughout the document.

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91. Flooded batture land that is reforested will have characteristics similar to forested areas in the floodway. They possess slackwater and structural diversity and are directly accessible. Swales and ridges in the batture create habitat similar to tributaries: deep, warm water that persists after floodwaters recede and a corridor for movement within the floodplain. In addition, increased hydraulic circulation in the batture will reduce hypoxia that can occur in large backwaters, such as the floodway, during prolonged flooding in late spring and early summer. Batture land is also directly accessible to fish and has heterogeneous habitats suitable for fish spawning and rearing. Those fishes that are "not truly stream or large river species" are either habitat generalists or permanent inhabitants of wetlands that prefer isolated waterbodies. High species richness in the St. John's basin indicates that these groups of fishes will continue to inhabit streams and wetlands of NMF. Thus, the Corps considers batture land suitable mitigation sites. The floodway is man-made, trees have been cleared from most stream banks, high turbidity prevails for much of the year, and the adjacent floodplain is comprised mostly of agricultural fields. Conversely, batture land is more diverse, floods regularly, and with reforestation of frequently flooded agricultural land, can provide quality habitat for many fishes that are currently found in the NMF. A landscape analysis of the

RSEIS-99, Section 5.17.3, paragraph 6: The percentage of the two-year Mississippi River floodplain habitat attributed to the New Madrid area floodplain (8.4 percent) appears to at odds with the 3.1 percent cited for the Floodway contribution at the top of page 65 and also in the next-to-the-last paragraph on page 97. The first paragraph in Section 3.6 (page 16) indicates that the Floodway contains approximately 10 percent of the total two-year floodplain in the 113-mile reach. These apparent discrepancies should be resolved and appropriate sections revised in the final document.

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92. The discrepancy between Section 5.17.3 (8.4% along the 113 mile reach) and Section 3.6 (10% along this 113 mile reach) has been corrected. The reference reach is from Cairo, Illinois to Carruthersville, Missouri.

The other reach referred to in Section 5.17.2 is a different reach, from the confluence of the Mississippi and Ohio rivers to the confluence of the Mississippi and White Rivers. The 113-mile reach is intended to reflect just the local project area in Missouri and the adjacent bank, while the larger reach describes the regional floodplain.

RSEIS-100, top paragraph: Please refer to the Service's previous comments detailed in its scoping comments and FWCA and Planning Aid letter reports, as well as the Department's comments on the SEIS, regarding the basis of our mitigation recommendations and the limitations of evaluating and compensating wetland functions, as well as the availability of suitable mitigation lands in or near the project area.

93

93. Please see Responses #7, #9, #5, #17, #18, #23, and #26.

RSEIS-100, Section 6.0 (Recommended Mitigation): Please refer to the Service's previous comments detailed in their scoping comments and FWCA and Planning Aid letter reports, as well as the Department's comments on the SEIS, regarding the basis of our mitigation recommendations and the limitations of evaluating and compensating wetland functions, as well as the availability of suitable mitigation lands in or near the project area. To date, project impacts to several ecologic wetland and floodplain functions (e.g., water quality, nutrient cycling, detrital import/export, floodwater storage, and habitat for reptiles and amphibians) have not been quantified and the degree to which the proposed mitigation compensates for those losses is unknown. For example, the proposed mitigation plan recommends compensating fish and wildlife losses by reforesting frequently flooded agricultural land (i.e., farmed wetlands). That measure would not compensate for lost floodwater storage and floodplain/river connectivity because there would be a net loss of both in spite of the proposed mitigation plan.

94

94. Please see Responses #18, #26, and #65. It should be pointed out that the Corps has done analysis of impacts to a reasonable level and proposes implementation of every mitigation measure that the Service previously recommended

The Department strongly supports the additional avoid-and-minimize measures within the basins to establish buffer strips along project-area ditches and reduce adverse project impacts to associated fish and wildlife resources.

95

95. Noted. Please note that the significant additional avoid and minimize measures are additive, i.e., without a downward adjustment in mitigation, and with the intent of developing a more environmentally sustainable project for the floodway.

Appendix B (Economics and Social Analysis): It is not clear to us what areas benefit by a particular level of flood protection under each scenario, how that information was used to generate economic outputs, and whether those methods are consistent with the methods used to assess environmental impacts. This section is confusing because it refers to alternatives not analyzed in this document and does not clearly identify what constitutes some of the economic categories and how those are affected under each project alternative. In addition, in the Socioeconomic section, it is not clear how other federal programs, particularly agricultural programs, are considered in the analysis. The final document should address each of these issues.

96

96. Appendix B has undergone a detailed technical review. It is consistent with current Corps regulations and guidance. The effects of other Federal programs have been considered to the fullest extent practicable. The appendix presents the benefits and costs of all alternatives potentially having a benefit to cost ratio greater than one and all alternatives specifically requested by other agencies. The assumptions used in the appendix are consistent with those used to assess the environmental effects.

B-24, Table 19: Neither the table nor the accompanying text make clear which alternatives are being considered in Table 19. The final document should provide additional explanation.

97

97. The left hand column was mistakenly truncated during reproduction. This has been corrected in the final SEIS.

Appendix D (Wetlands): The final document should explain why the assessment of wetland impacts was limited to 300 feet NGVD and lower, yet flood reduction and project benefits accrue to areas above that elevation in both basins.

98

98. Natural hydrologic, topographic, and geologic factors other than backwater flooding have a significant influence on project area wetlands. The influence of these factors is evident in both project basins, since wetlands exist above the 300-foot contour, the maximum practical limit of backwater inundation. In fact, these factors rather than backwater or overbank headwater flooding are responsible for the existence of virtually all wetlands above 290 feet NGVD. Thus, the impact that this project causes to wetlands is limited to areas of frequent backwater inundation as described in Appendix D. Although the project does not change the frequency and duration of

floodplain was conducted to delineate the various habitat types that existed in the project area. Our classification included scatters, breaks, and tributary mouths that represented the topographic diversity in the floodplain. These habitats had high spawning and rearing values. Mitigation lands will be delineated similarly, and the Corps will work closely with agencies to include topographic diversity in reforested lands.

D-5. Hydrologic and Topographic Effects: This section discusses the presence of wetlands post-project due to a number of factors not related to backwater flooding. If this is the case, the text should describe how that information was used to determine site-specific, post-project hydrologic conditions and factored into the assessment of project benefits with each alternative. In addition, based on Table 1, it appears that project implementation will result in a sufficient reduction in inundation of farmed wetlands that very few acres of land will remain in that land classification in the New Madrid Floodway.

99

flooding above 290 feet NGVD enough to impact the existence of wetlands, the project does reduce flood damage above this elevation.

Wetland impacts, by regulation, are assessed from inundation, saturation, soil condition, and flora types. The impact that this project causes to the local hydrology is strictly with respect to backwater inundation. This is because the proposed project does not address any interior channel work on the New Madrid Floodway or otherwise cause any change in the hydric soil conditions in the floodway. The inundation analysis for Corps and NRCS criteria for both basins indicates backwater inundation effects are contained within the 300 feet NGVD contour.

Flood events greater than the two-year event do cause damage to cropland, streets, homes, businesses, and other assets. Therefore, the prevention of flood damage for events greater than 300 feet NGVD is an appropriate quantity to calculate and present as a project benefit. Please review Appendix B for a discussion of how flood damage avoidance benefits are calculated.

99. All project alternatives must be assessed in comparison to current conditions. Benefits to the project are due to a reduction in the frequency of inundation in the project area. The primary impact from this project is the reduction of backwater flooding (backwater inundation). Consideration of wetland impacts is associated with the assessment of impacts to that resource. Analyses were performed to determine impacts to wetland functional values for each of the project alternatives. The loss in functional value of the impacted wetlands has been fully mitigated for as part of the project formulation process in coordination with the cooperating agencies. Those wetlands unaffected by each of the project alternatives cannot be considered a benefit to the project, since those areas currently exist.

Ref er to response to Response #25 for discussion of the post-project status of farmed wetlands.

D-6. second paragraph in b: The Corps' statement that project-area wetlands would be unaffected by channelization is at odds with the findings of Luckey (1985), as cited in the Service's FWCA report, that documented reduced inundation and ponding in surrounding areas as a result of channelization projects in the Bootheel.

100

100. Comment noted. The Corps stands by the statements provided in the referenced paragraph.

D-7. paragraph 3: This section states that project-area wetlands formed by factors other than headwater flooding will remain unchanged. However, this project is anticipated to provide reduced flooding in areas above 300 feet NGVD, including benefits from reduce headwater flooding. The document should also address how wetlands in those areas will be affected by such hydrologic changes.

101

101. See Response #48 and #98.

D-8. paragraph 1: This section should reflect the Service's determinations of post-project wetland conditions as previously noted in its FWCA and Planning Aid letter reports and our comments on RSEIS-S1, paragraph 2, above.

102

102. Noted, incorporated.

D-9. Habitat Evaluations of Each Wetland Type: The document fails to mention that the HEP team agreed to certain assumptions for each alternative, including the assumption that there would be significant losses of forested wetlands because of project-related changes in flooding. The Corps also failed to include the resulting analyses in this document. Those assumptions and findings, as detailed in the Service's FWCA report, should be included in the final document to adequately disclose project impacts to trust resources.

103

103. Noted, incorporated into Section 5.4.2. See also response #68.

D-9. last paragraph: This paragraph provides another example of the document's confusing presentation of project impacts. In the water quality sections, the document states that agricultural intensification will not lead to discernable impacts to water quality, while this section claims "immediate positive" impacts from mitigation lands because of a reduction of materials associated with agricultural lands. The final document should clarify this issue and for each project alternative describe the net effects of agricultural intensification and the associated compensatory mitigation measures.

104

104. As reported in the water quality appendix, no major impacts to water quality will result from agricultural intensification. There would, however, be obvious benefits to water quality by converting agricultural lands to woodlands.

Appendix F (Section 404(b)(1) analysis): According to the text on page F-7, the intent of the project is to reduce seasonal flooding within the New Madrid Floodway. This statement raises number of questions. If true, how does that justify flood control in the St Johns Basin? In addition, if the Corps defines the project purpose as eliminating seasonal flooding on farmed and non-farmed wetlands, it would appear that there are few alternatives to achieve such a goal. On the other hand, in previous sections, the Corps notes that the project purpose is to reduce flooding in order to reduce flood damages and provide for agricultural enhancement and economic development of the project area. In fact, the Corps uses the economic development goals of the East Prairie Enterprise Community as essentially a screening tool for acceptable project alternatives. As we stated in our comments on the SEIS, the Department does not consider transportation, infrastructure and agricultural development to be wetland-dependent activities and therefore, we presume that non-wetland alternatives exist to achieve those project goals. We have recommended a number of project alternatives that would meet those needs while still maintaining substantial wetland value and functions within the project area. In addition, this section notes that those areas which will no longer experience seasonal flooding will not be addressed in this analysis. We note that throughout its conversations with the Service and in the discussions in this document, the Corps has maintained that this project would not eliminate flooding but only reduce the frequency and duration of that flooding. In order to more clearly portray project impacts, the Corps should reconcile the assertions noted above and clarify the areas alluded to in this section where flooding would, in fact, be eliminated.

105 105. This section has been clarified to provide consistency with the stated purpose as documented in the RSEIS. The 404(b)(1) report has been revised to state that flooding would, in fact, be reduced and not eliminated. The report has been revised to include discussions of effects of reduced inundation as secondary/indirect impacts of the project.

F-14, Section 2.6.2 (Wetlands): This section fails to include any discussion of secondary impacts to wetlands, which we believe will result in a substantial reduction of wetland functions within the project area. The final document should include a rigorous discussion of those significant impacts.

106 106. Section 2.6.2 (now Section 2.5.4.2, *Wetlands*) has been revised to include a discussion on the reduction in wetland function as a secondary impact of the project.

F-15, Section 2.7 (Threatened and Endangered Species): Please refer to our previous comments on RSEIS-70 regarding the Service's findings in the Biological Opinion.

107 107. FWS has alluded to the loss in fishery spawning and rearing as adversely affecting the supply of forage fishes, which serve as food for bald eagles and least terns. However, as reported in Appendix G, *Impacts of St. Johns Bayou-New Madrid Floodway Flood Control Project on Fishes*, and in Appendix L, *Mitigation Plan*, the proposed mitigation would more than compensate for spawning and rearing habitat lost as a result of the project.

A discussion of secondary/indirect impacts has been added to this section.

F-15, Section 2.8 (Wildlife): This section fails to adequately describe anticipated secondary effects to wildlife as a result of project-related changes in hydrology. The section should be revised to fully disclose those impacts. Please refer to the Service's FWCA and Planning Aid letter reports for a more detailed analysis of these impacts.

108 108. Section 2.8 (now Section 2.5.6, *Other Wildlife*) has been revised to include secondary/indirect impacts on wildlife.

F-16, Section 2.4.3.2 (Recreational and Commercial Fisheries): This section should be revised to reflect the Service's analyses of project impacts to fisheries and associated recreation, which we believe will be significant. Its findings are detailed in the FWCA and Planning Aid letter reports.

109 109. The FWCA notes that 6186.4 acres of reforested land would be required to compensate for spawning and rearing habitat lost in the New Madrid Floodway. This is less than that calculated in Appendix G, *Impacts of St. Johns Bayou-New Madrid Floodway Flood Control Project on Fishes*, in which 7058.7 reforested acres were determined to be required for compensation. The proposed mitigation would more than compensate for these losses.

F-17, Section 2.4.3.5 (Parks, etc.): Please refer to our previous comments on RSEIS-49, paragraph 2, regarding the adverse ecologic effects on Big Oak Tree State Park (a part of which is a National Natural Landmark) from substituting an artificial, highly controlled water control plan for the current backwater flooding regime and revise the text in the final document accordingly.

110 110. Under currently existing conditions, Big Oak Tree State Park is undergoing a drying out and is transitioning from a wet-mesic Bottomland Hardwood (BLH) to a dryer forest type. Current backwater flooding has been inadequate to offset this transition. Without implementing a water management program, the Park will continue to undergo drying, the effects of which would be adverse and significant. The "artificial, highly controlled water control plan," which is included as mitigation for the project, offers a means to maintain the integrity of the BLH community of the Park.

F-17, Section 2.5 (Determination of Cumulative Effects on the Aquatic Ecosystem): This section is inadequate because it fails to fully evaluate indirect and cumulative impacts of project implementation on wetlands and aquatic life.

111 111. Section 2.5 (now Section 2.7, *Determination of Cumulative Effects on the Aquatic Ecosystem*) has been revised to better describe the cumulative effects of the proposed project.

Appendix G, page 23, Table 13: The heading of this table is confusing. It is the Service's understanding, confirmed in the text, that fisheries habitat was computed as daily averages over the period of record for the area *within* the two-year floodplain, rather than acres flooded *during* a two-year flood as described in the Table. In fact, during a two-year flood, far more acreage is inundated according to the Corps' elevation and land cover data.

112 112. The USFWS interpretation is correct. The computation of acres is clearly stated in the Methods section of Appendix G. The table heading will be revised for clarification.

Appendix H (Biological Assessment): This appendix should clearly note that the Service determined that Alternative 3-1.A is likely to adversely affect both the interior least tern and the bald eagle. Unlike the information presented in this appendix, that determination is not based on population effects but rather on effects on individual animals. As the Service has previously explained to the Corps, population-level effects analyses are solely the determination of the Service, which considers the likelihood of such effects in its jeopardy/non-jeopardy determinations.

113

113. Section 5.8.2 of the RSEIS iterates the USFWS opinion that potentially two eagles might be incidentally taken as a result of project implementation. USFWS has recommended mitigation measures that would serve to reduce this potential, and the Corps is fully committed to adhering to that agency's guidance to the greatest extent practicable.

Appendix L (Mitigation and Environmental Features): The Department strongly supports the additional environmental enhancement features included in this section. We believe that the establishment of buffers strips along project-area ditches can improve fish and wildlife habitat and water quality, as well as reduce the need for channel maintenance. We encourage the Corps to implement those features to the maximum extent practicable.

114

114. The Corps appreciates USFWS support regarding these features.

The discussion on compensatory mitigation measures has a number of shortcomings. This discussion fails to note the importance of maintaining riverine connectivity and an appropriate hydrologic regime at those sites to realize necessary compensatory mitigation goals. In addition, the appendix fails to note that very few acres within the project area will remain inundated, much less provide fisheries access, under most of the project scenarios. Furthermore, the text should discuss the effects of the levee setback options and the fact that they provide the only means of not only minimizing fisheries impacts but also of providing hydrologically suitable lands for fisheries compensation. Throughout the document, the Corps states the anticipated benefits from the proposed mitigation measures as an eventuality rather than as highly speculative. Only in this section does the Corps acknowledge the uncertainty of finding willing sellers and suitable lands to compensate project-related habitat losses. This level of uncertainty should be clearly disclosed throughout the document, as well as the limited availability of suitable lands in the project area regardless of willing sellers.

115

115. The value of connectivity is implicit because mitigation is formulated to mitigate losses associated with reduced connectivity. Effects of levee setback options are discussed in more detail in the final mitigation appendix. Regarding the USFWS assertion that levee setback options provide the only hydrologically suitable lands for fishery compensation, the Corps disagrees. Operating gates to increase hydrological connectivity was a primary focus of reevaluation and was supported by the interagency planning team. The current recommended alternative provides a substantial benefit to fish as compared to the originally recommended avoid and minimize alternative by increasing connectivity to 284.4 through the mid-season spawn. Also, improved habitat conditions on other frequently flooded lands provide hydrologically suitable lands for fish. The Corps will work with an interagency team, as well as the local sponsor, to acquire the best lands available.

L-5, paragraphs 2 & 5: The text correctly states that the HEP team agreed to certain assumptions for each alternative. It should be noted that one of those assumptions is that significant losses of forested wetlands will occur as a result of project-related changes in flooding. Unfortunately, the Corps not only failed to include the HEP analyses in this section, the Corps contends that there will be no indirect impacts. This section should be revised in the final document to include the findings and recommendations of the HEP team, as noted in the Service's FWCA report.

116

116. Although the Corps disagrees with the Service position, it is important to note that the issue is one of impact disclosure. Both positions are stated in numerous places and the reader is aware of this difference in assessment. What is also important to remember is that, based on analysis of the HEP team, and what Service representatives have acknowledged, is that the mitigation plan proposed by the Corps would fully compensate losses associated with forested wetlands should they, however unlikely, occur. See Response #25.

L-5, Section 4.2 (Fisheries Habitat): This section should note that the fisheries HEP did not consider the impacts of levee closure on fish access. The Service discussed those impacts in its FWCA report, and those discussions should be included in this section.

117

117. As stated in Response #77, the Corps assumed total loss of habitats and access above the levee closure, so the impacts on fish passage were considered. Despite the assumption of total loss, there will be opportunities for fish access. Depending on water elevations in the Mississippi River and sump behind the closure, the gates will remain open to the maximum extent possible during the early and mid-season reproductive period. High fish diversity of fishes in St. Johns basin, including riverine species, suggests periodic movement of fish through gated structures. Therefore, the Corps assumed total loss of habitat despite evidence that fish can and will move between the Mississippi River and the floodway.

L-10, paragraph #5: Please refer to our previous comments on RSEIS-99, paragraphs 3 & 4, regarding the unsuitability of batture lands to compensate backwater habitat losses in the Floodway. The text in the final document should be revised to incorporate the views of the Service on this issue, as expressed in their Planning Aid letter report and FWCA report.

118

118. Please see Response #91.

L-16, Section 10.0 (Mitigation Site Selection): The Service provided to the Corps a number of criteria for suitable mitigation sites in its FWCA report and its scoping comments for this document. Most of the sites listed in this section fail to meet one or more of those criteria. Most of those sites will not have the required riverine connectivity or hydrology under most project alternatives to provide compensatory fisheries habitat value. In addition, some of those areas are already receiving some environmental enhancement measures as Wetland Reserve Program sites, Partners for Wildlife Projects, or mitigation for Section 404 permits. The lower Floodway could provide suitable mitigation sites under alternatives with levee

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119. Based on Service criteria for suitable mitigation sites, there would be virtually none available, because most all-potential sites come short of at least one criterion. Concur that sites already protected, as natural habitat by other programs would not be suitable. Regarding sites in the lower floodway, the desirability of some lower floodway sites is enhanced with modified gate operation up

alignments further up the Floodway. This section should include a more thorough discussion of the suitability and availability of potential mitigation sites under each alternative.

L-19, Section 10.3 (Detailed Mitigation Site Plans): The Department continues to recommend that the Corps work with the project sponsors and resources agencies to clearly identify suitable mitigation lands and measures and that those lands and measures be fully described in the Final RSEIS so that both environmental and economic aspects of project implementation are fully disclosed and that the level of uncertainty surrounding mitigation issues is minimized. In addition, the ROD should clearly indicate the Corps' commitment to timely acquisition of those lands and implementation of mitigation measures.

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to elevation 284.4. Other sites in the floodway may also be desirable. More information and site detail is included in the final mitigation appendix that should assist in mitigation planning and, ultimately, implementation.

120

120. Additional information is provided regarding mitigation lands. The Corps does commit to timely acquisition of lands and it is policy that mitigation be implemented concurrently with project construction.

Enclosure 2

United States Department of the Interior

**NATIONAL PARK SERVICE
1849 C Street, N.W.
Washington, D.C. 20240**

N19(2320)

Colonel Jack V. Scherer
District Engineer
U.S. Army Corps of Engineers
Memphis District
167 North Main Street, B-202
Memphis, Tennessee 38103-1894

Dear Colonel Scherer:

After reading the December 12 letter to you from Director Stephen Mahfood, Missouri Department of Natural Resources, the National Park Service shares Director Mahfood's concerns about Big Oak Tree State Park National Natural Landmark (NNL). The hydrological regime of this nationally significant area, which has already been negatively affected by adjacent agricultural land use, will be significantly threatened by the flood control project described in the *Draft Revised Supplemental Environmental Impact Statement (REIS)* released on October 22, 2001 by the Memphis District Corps of Engineers. It is crucial that the REIS identify exactly how and when the Corps will provide various protective measures to safeguard this NNL from further hydrological damage. Ecological foresight is essential because attempts to mitigate the damage after the project is over may fail.

This NNL is highly significant on a national scale. It is the only sizeable tract of essentially uncut wet-mesic bottomland hardwood forest remaining in the northern part of the Missouri Alluvial Plain section of the Gulf Coastal Plain. Bottomland hardwood forests once covered 2-4 million acres of southeastern Missouri; today, only about 1% remain as remnants of 1,000 acres or smaller, and much of this has been intensively managed. Nearly the entire 1008-acre park is native wetland, and represents one of Missouri's most threatened biotic landscapes. The park protects important mesic bottomland hardwood forests, swamps, and shrub-swamps; nine state and national champion trees, and 11 rare or endangered species for Missouri. The plant communities are dependent on the hydrological regime.

Big Oak Tree State Park has been listed on the annual *Section 8 Report on Damaged and Threatened National Natural Landmarks* to Congress from 1993 to 1999. This NNL was subsequently administratively reported as threatened in 2000, and will be so highlighted again in 2001. Since 1993, the listed threat has remained unchanged: potential further alteration of the forest's hydrological regime. We are concerned that now the St. John Bayou/New Madrid Floodway flood control project is in its final planning stages without enough specifics on exactly when and how that hydrological regime will be protected.

The Corps concurs. The document has been revised accordingly. Please refer to the Corps' letter dated January 29, 2002.

M-34

It is highly probable that the hydrological changes that would result from this project, as proposed, would be extremely detrimental to this NNL. Although the ecological impact may not be obvious right after the project is completed, over a longer period of time, it may destroy the forest. Therefore, adequate ecological pre-planning, followed by ample opportunity for review by concerned parties with ecological expertise, is essential.

We have been very pleased with the good working relationship we have had with the Corps on the National Natural Landmarks Program. As you may know, each year we sent the draft Section 8 site narratives to the Corps' Washington D.C. headquarters and various Districts, for comment. And the report has always greatly benefitted from the input we have received. But our current perception is that this recent project renewal has been moving forward very rapidly without benefitting from enough review of how the Corps plans to safeguard this forest's dependence on historical hydrological relationships. We would appreciate the opportunity to comment on a revision of this current REIS so we can attempt to assess whether it is indeed feasible to not further diminish the ecological integrity of Big Oak Tree State Park as a result of the proposed St. Johns Bayou/New Madrid Floodway flood control work. To do so, we would appreciate a step-by-step chronology of exactly what mitigation steps will be taken.

Because of the deadline imposed for comments on this REIS, our remarks must be abbreviated. We are faxing this letter so our comments are on record before further planning continues. Thank you for the opportunity to comment.

Enclosed is the February 1995 issue of the journal *BioScience*. Note that Big Oak Tree State Park is on the front cover.

Sincerely,

Michael Soukup
Associate Director
Natural Resource Stewardship and Science

cc: Stephen Mahfood
Director, Missouri Department of Natural Resources

Governor Bob Holden
State of Missouri

Chief, Corps of Engineers
Washington, D.C.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

March 8, 2002

Colonel Jack V. Scherer
District Engineer
U.S. Army Engineer District, Memphis
ATTN: Environmental and Economics Analysis Branch
167 North Main Street, B-202
Memphis, TN 38103-1894

Dear Colonel Scherer:

The U.S. Environmental Protection Agency (EPA) has reviewed the St. Johns Bayou and New Madrid Floodway Project Draft Revised Supplemental Environmental Impact Statement (RSEIS). The project, located in southeast Missouri, involves a proposal to close an existing 1,500-foot gap in the Mississippi River Frontline Levee, enlarge existing drainage channels, and construct two pump stations. Our review is provided under the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations (40 CFR Parts 1500-1508), Section 309 of the Clean Air Act, and Section 404 of the Clean Water Act (CWA).

The EPA has conducted its review of the draft RSEIS recognizing the need for additional flood damage measures in the project area. We have placed particular emphasis on working with the Memphis District and others to identify a project that satisfies the flood protection goals of the communities of East Prairie and Pinhook, Missouri. We have consistently emphasized the importance of evaluating a full range of potential project alternatives that, consistent with the requirements of NEPA and the CWA, ensures consideration of all economically practicable opportunities to avoid and minimize adverse harm to human health and the environment. We recommend the Corps consider northward movement of the levee closure in order to reduce environmental impacts and achieve project purposes. In addition, we recommend that the Corps refine its evaluation of wetland mitigation in the Final Environmental Impact Statement (FEIS) and in the 404(b)(1) evaluation. I want to reaffirm our commitment to work with you and with all project stakeholders to complete the NEPA process, and to select a project alternative that satisfies each of these critical objectives.

Because no preferred alternative was declared in the RSEIS, EPA's ratings are provided to each of the alternatives that were carried forward for detailed analysis. Consistent with NEPA and CWA standards and criteria applicable to the review of the draft RSEIS, EPA has rated the "authorized project alternative (alternative 2)" and alternatives 3-1 and 3-2 as "Environmentally Unsatisfactory - Insufficient Information" (EU-2). The basis for these ratings is the potential adverse impacts to wetlands and the degree of uncertainty of achieving necessary mitigation. EPA has rated alternative 3-3 as "Environmental Objections - Insufficient Information" (EO-2), recognizing that a levee closure that is approximately displaced 2.0 miles into the New Madrid Floodway maintains direct Mississippi River connectivity to contiguous tracts of Missouri's rare Bottomland Hardwoods. As for the alternative three features that pertain specifically to the "St. Johns Bayou basin only," EPA has no objections. Further discussion of issues and information needs associated with these alternatives are provided in the detailed comments.

The process of preparing the final RSEIS represents the opportunity to identify a project alternative that is sound from both an engineering and economic standpoint, satisfies the needed flood reduction objectives of the communities in southeastern Missouri, and reduces the extent of adverse environmental impacts. We are eager to coordinate with the Corps to complete the NEPA process and identify a project alternative that works for all stakeholders, and is economically and legally sufficient.

Intro: The Corps disagrees with the Environmentally Unsatisfactory rating on the authorized project alternative and on Alternatives 3-1 and 3-2. The primary impact of these alternatives is associated with a reduction in springtime backwater inundation. Backwater areas subjected to this flooding provide habitat for spawning and rearing fish. The Corps studied an array of alternatives to avoid these impacts and proposed modifications in gate operation to ameliorate impacts by allowing spring flooding to occur on the most significant fish spawning areas through the mid-season spawn. Also, remaining losses would be fully mitigated by a mitigation plan that includes reforestation of agricultural lands. This mitigation plan, while fully mitigating fishery losses, significantly overcompensates all other measurable impacts. Impact analysis and mitigation planning was fully coordinated with all resource agencies. In addition to a very aggressive mitigation plan, the Corps has, since filing of the previous FEIS, developed a substantial avoid and minimize plan that includes establishing buffer areas on 64 miles of streams and channels in the New Madrid Floodway. In all, the Corps believes that the project area environment will be enhanced with project implementation.

Also, the Corps believes the EPA has incorrectly stated there is insufficient information (the 2 rating) regarding these three alternatives. The Corps has identified a pool of potential mitigation sites that exceeds 26,000 acres (Appendix L, Section 10.1). Further, the Corps has identified five mitigation sites that total 9,014 acres (See the second paragraph in the comment response #14 below for information on Donaldson Point) and offer suitable in-kind mitigation (Appendix L Section 10.2). The Corps is also committed in its intent to further the Big Oak Tree State Park restoration (1,074 acres). The mitigation required for the recommended alternative is 8,327 acres. There are ample mitigation lands identified. Section 6.3 of the draft SEIS clearly discussed the procedures and legal requirements for the acquisition of mitigation lands. The Corps is clearly in compliance with the statutory requirements, and therefore adamantly disagrees with the insufficient information declaration based upon the rationale the EPA provides in the March 8, 2002 cover letter.

Regarding the Environmental Objections - Insufficient information designation for Alternative 3-3, the Corps reiterates its position offered above regarding project impacts and the mitigation plan.

Because of concerns that have been raised during project planning, the Corps believes that a rating of Environmental Concern is the lowest that should apply. Regarding adequacy of the document, the Corps believes that the document warrants a Category 1 rating based on the significant amount of study and data that has been reported.

Thank you again for the opportunity to comment on the draft RSEIS and to participate in the NEPA process on this project. We look forward to continuing our coordination with your office as the final RSEIS is developed. If you have any questions, please contact me or have your staff contact Mr. Joe Cothorn, NEPA Team Leader, at (913) 551-7148.

Sincerely,

James B. Gulliford
Regional Administrator

Enclosure

**EPA Comments
Draft Revised Supplemental Environmental Impact Statement
for the St. Johns Bayou and New Madrid Floodway Project**

General Comments

The draft RSEIS does begin to explore alternatives which propose to move the New Madrid levee closure north of the authorized project alternative. [Data contained in the draft RSEIS indicate that a more northern levee alignment would contribute to reducing adverse environmental impacts by avoiding valuable forested wetlands in the southern portion of the floodway, improve flood protection for most of the targeted farmlands, ensure the needed protections for communities such as Pinhook, and provide an opportunity to consolidate mitigation in areas south of the closure. Alternatives 3-3 and 7-2 represent opportunities to reduce adverse environmental impacts while providing the majority of flood damage reduction measures originally established for both St. Johns and New Madrid. Alternative 7-2 would move the levee closure 3.5 miles north of the authorized project in the New Madrid Floodway while implementing the "alternative 3" components of the St. Johns Bayou Basin project.]

M-37



1

1. The study has investigated (or explored) measures to minimize impacts since its initiation in 1996, including a northerly closure alignment that was proposed by MDC. Since reformulation began after the filing of the final SEIS in September of 2000, the Corps investigated four additional alignments, and these were reported in the draft RSEIS. Although most targeted farmlands could be protected by one of the more northerly alignments, a significant amount of farmlands would be left unprotected, and these are farmlands that would receive the most benefits of flood protection measures. A closure alignment at the lower end of the floodway does not preclude mitigation in the lower floodway area, and gate modifications to increase connectivity between the river and the lower floodway to allow for greater fish utilization would make some of these lower elevation areas desirable for mitigation. The mitigation required for each particular location with the 22.5 start pump elevation (Avoid and Minimize operation) was calculated based upon the rearing mid-season fishery impacts. Since rearing impacts are calculated based upon the loss of any acres that water touches with the alternatives considered, not just the loss of those areas that have one foot or more water, this is the most liberal individual indicator the project team could have used. This criteria was used in estimating the mitigation requirements for the five different levee closures under the 282.5 Avoid and Minimize scenario for the floodway portion of the project:

ALTERNATIVE	REQUIRED MITIGATION*
3-1A	8,244 acres
3-1B	7,059 acres
3-2A	8,029 acres
3-3A	7,371 acres
7-2	6,377 acres
7-3	4,072 acres

*See Draft SEIS (October 2001) Appendix H, Page 24

While there is a marked drop in mitigation for the northern most location, 7-3, there is not a very significant drop in mitigation required from Alternative 3-1A to either 3-2A or 3-3A. In fact, the modified gate operation of Alternative 3-1B actually causes less fishery impact than either 3-2A or 3-3A. As illustrated by the fishery diversity in the St. Johns Bayou Basin, the fish do use the gravity outlet structures for migration. It is important to realize the relative difference in the alternative locations and the environmental avoidance offered by the modified gate operation alternatives.

Compared with the authorized project alternative, Alternative 7-2 (3.5 mile option) provides the same damage reduction for the communities of East Prairie and Pinhook, improves flood protection for 85% of the wet crop land in the New Madrid Floodway, avoids impacts to an additional acres of forested wetlands (with a commensurate reduction in the cost associated with mitigating for these losses), and presents an opportunity to consolidate mitigation on a contiguous tract of frequently flooded lands that would be restorable below the levee closure.

2

2. Protecting cropland for agricultural benefit is a direct project purpose, regardless of whether that cropland is wet cropland or not. Protected wet-cropland acreage is not a value used to calculate either "Agricultural Inundation Reduction" or "Agricultural Intensification." Table 19 compares the Annual Benefit, as well as the net Excess Benefit for the closure levee feature for each Alternative 2 through 7-3. While alternative 7-2 has an annual benefit of \$873,000, it has a net excess benefit of negative \$574,000. This is not an economically viable alternative. Therefore, even with the added mitigation cost, the Recommended Alternative is economically justified, whereas Alternative 7-2 is not.

Each of the EU rated alternatives, if implemented, would result in significant adverse impacts, including the loss of, or hydrological modifications to, an estimated 13,000 acres of forested and farmed wetlands, highly productive aquatic resources which are currently providing valuable habitat for numerous species of fish, waterfowl, wading birds, shorebirds, amphibians, reptiles and mammals. Our concerns about the nature and extent of these project-related impacts are heightened when considered in light of available project alternatives that would reduce adverse impacts, and in consideration of the extensive cumulative losses of Bottomland Hardwood Wetlands that have previously occurred in the Mississippi River floodplain. In addition, the draft RSEIS does not include an adequate mitigation plan that ensures that all appropriate and practicable steps are being taken to compensate for unavoidable adverse environmental impacts associated with these alternatives.

3

3. Please refer to USFWS Responses #2, #7, #8, #9, #15, #23, #26, #77, and #79. We have developed significant avoid and minimize measures in both the St Johns Basin and New Madrid Floodway. We have worked diligently with resource agencies to develop mitigation measures to fully mitigate project losses. In fact, the mitigation plan developed to fully compensate for fish rearing losses results in resource gains for fish spawning, waterfowl, and wildlife in general. Separable measures were also developed for shorebirds. Waterfowl enhancement has always been a part of project planning with substantial areas dedicated to wintering waterfowl habitat. Regarding EPA comment about cumulative Bottomland Hardwood Wetland losses, the project with mitigation, results in a substantial net increase in Bottomland Hardwood habitat. Numerous other flood damage reduction alternatives were studied, including alternative closure locations, and none were found to be economically justified or to otherwise meet the needs of the project area.

Impacts to Wetland Functions

Implementation of proposed project features within the range of alternatives studied would reduce seasonal inundation by Mississippi River backwater flooding on 12,000-13,300 acres of wetlands in the St. Johns Bayou Basin and New Madrid Floodway.] Of this amount, approximately 3,300 - 4,100 acres are forested wetlands, including bottomland hardwood, riparian and swamp systems (RSEIS, pp. 24-25).

4

4. The recommended plan, Alternative 3-1.B, will not adversely impact over 18,000 acres of wetlands. Inundation caused either directly from backwater flooding or from high Mississippi River stages that lead to headwater inundation in St. Johns Bayou Basin (St. Johns) and the New Madrid Floodway (New Madrid) will be reduced on less than 13,205 acres of wetlands. The Corps' position is that all forested jurisdictional wetlands will retain jurisdictional status. As a result, the maximum potential loss of jurisdictional wetlands (from those not currently forested) will be less than 7,418 acres of farmed wetlands. Furthermore, the Corps, in consultation with DOI, has proposed mitigation for the recommended plan that will result in the reforestation of 8,375 acres of previously cleared lands in or near the project area. This reforested acreage will become jurisdictional wetland. As a result, forested wetlands in the project area will be more than doubled.

Although impacts to these aquatic resources stemming from significant hydrologic alteration may not immediately affect the jurisdictional status of all project area wetlands, the functions they perform would be impaired.

5

5. There would be some impact to the functional value of the wetlands that will have less inundation due to backwater even though they maintain their jurisdictional status. But there will also be long term water quality functions that will be provided by the project that are not currently provided. These advantages include the creation of a sump area for sediment trapping and buffering strips along channels within the floodway. Refer to Environmental Defense Fund (EDF) Responses #37 and #38.

Fluctuating water regimes in forested wetlands are of key importance. As recognized in the recent National Research Council publication, *Compensating for Wetlands Losses Under the Clean Water Act*, hydrology is "the primary driving force influencing wetland development, structure, function, and persistence" (NRC 2001). Specific to forested wetlands, "the presence, movement, quality, and quantity of water strongly influence the physical, chemical, and biotic processes that characterize bottomland hardwood ecosystems" (Gosselink et. al. 1990).

6

6. Noted. Refer to EDF Responses #5, #37, and #38.

The frequency and duration of flooding and resultant soil moisture are critical in the functioning of bottomland hardwood wetlands. Periodic overbank flooding is what initially formed and sustains these floodplain wetland ecosystems and is directly associated with the variety of functions they naturally perform. Riverine floodwaters contribute nutrients and mineral sediments, control the import/export of organic and inorganic material, and maintain a more oxygenated root zone. All of these elements contribute to the high natural productivity of bottomland hardwood wetlands (Gosselink

et. al. 1990). When natural riverine inputs to these systems are artificially manipulated, reduced, or eliminated, the productivity of these wetland systems is affected.

- Seasonal riverine inputs contribute to the maintenance of high productivity in forested wetlands and are critical not only to the survival and proliferation of vegetative species, but also to fish and wildlife. [Natural, healthy vegetated systems exhibit hydrologic variability which prevents periods of waterlogged stress or extended drying, including flooding during the spring after trees break dormancy and to a lesser extent during the dormant season.] Periodic flooding is essential in seed dispersion and viability in forested wetlands, contributing to the high vegetative diversity of these systems.

River fisheries' access to forested floodplain wetlands through overbank flooding is critical, as species require the slack water of backwater flooded areas, particularly in spring, as significant spawning, nursery, and foraging habitat. Waterfowl, wading birds, shorebirds, and songbirds rely on project area wetlands during breeding and migrations. Amphibians, reptiles, and mammals utilize aquatic habitat within the proposed project area. These habitat functions are provided not only by forested wetlands within the project area, but also by altered wet herbaceous farmed wetlands, given the extent, duration, and timing of riverine inputs. In similar wetland complexes around the Reelfoot Lake National Wildlife Refuge (east of the Mississippi River in northwest Tennessee and southwest Kentucky) the complex of wetlands, bottomland hardwoods and croplands provide habitat to over 75 species of reptiles and amphibians, 239 species of birds, and 52 species of mammals.

- The Mississippi River is listed as an impaired water body, and is on Missouri's Clean Water Act Section 303(d) list. According to documentation that the state utilized for conveying this designation, the entire length of the Mississippi River that borders Missouri is so designated because of *habitat loss due to channelization*. [All alternatives carried forward for detailed analysis will further diminish Missouri's rare Mississippi River-connected habitat. Given that strategies to address this type of impairment generally involve off-river enhancements, EPA believes that proposed project features could contribute to further impairment of this water body.]

Information or Analysis Lacking

The Clean Water Act Section 404(b)(1) Guidelines evaluation, as presented in Appendix F of the draft RSEIS, is inadequate for the following reasons:

- Clean Water Act Section 404(b)(1) Guidelines 230.10(a) – Identification of the Least Environmentally Damaging Practicable Alternative:

- An identified basic project purpose for the proposal is flood protection, however, the desired degree of flood protection for communities and property has not been quantified and specifically stated in the document. Without this detailed information, selection of the project alternative which best satisfies flood protection objectives, thereby meeting the stated project purpose while minimizing environmental impacts, cannot be accomplished.

7

7

- While natural vegetated systems may adapt to variable hydrologic conditions, the Corps does not concur that they prevent periods of waterlogged stress or extended drying. Such systems may reduce normal variations in soil moisture but the vegetation is adversely impacted by extremes. The floodway is already a tremendously manipulated ecosystem that in no way resembles the historic vast bottomland hardwoods in southeast Missouri. Refer to DOI/USFWS Responses #2, #7, and #8.

8

9

- Refer to DOI/USFWS Response #8.

- Refer to DOI/USFWS Response #2, #7, and #8.

10

- A driving factor in NED plan formulation is to develop a plan that maximizes economic output while minimizing environmental damage. It is not known at the outset what level of protection will be justified. That is part of the plan formulation process.

Regarding the project authorization and purpose for the New Madrid Closure Levee feature, the following is provided. The floodway was constructed in the 1920's and 1930's. Thereafter, Congress, in section 203 (d) of the Flood Control Act of 3 September 1954, authorized "...modification of the authorized project for the New Madrid Floodway substantially in accordance with the recommendation of the Chief of Engineers in House Document #183 Eighty-third Congress..." Among improvements specifically delineated by the Chief of Engineers in House Document #183 was "...the construction of a new levee to project grade extending about 1,800 feet from the fuseplug section of the frontline levee across the existing gap therein to the setback levee...and the construction of a floodgate." The stated purpose of this levee closure and floodgate was/is to "...benefit 48,000 acres against the overflow of floodway lands by backwaters of the Mississippi River floods." The authorization states that these are the lands that were possible to profitably farm below 300 feet NGVD.

2. Clean Water Act Section 404(b)(1) Guidelines 230.10(c) - Adverse Effects on the Aquatic Environment:

- ▶ The Guidelines require a determination that the effects of a discharge of dredged or fill material will not contribute to the significant degradation of waters of the United States. The full extent of the effects of proposed project features on the aquatic environment, as characterized in comments above (i.e., acres of reduced inundation, reduced vegetative productivity, impaired habitat function, etc.) are not captured in the Guidelines' evaluation. Such an evaluation would quantify these effects for each project alternative analyzed, necessary for a determination of the least environmentally damaging project alternative.

11

11. Additional information has been added to appropriate sections of the evaluation to better address these concerns. Substantial information regarding impacts of the various alternatives, in addition to the Recommended Plan, is contained in the main body of the RSEIS.

3. Clean Water Act Section 404(b)(1) Guidelines 230.10(d)-Appropriate and Practicable Steps Which Minimize Potential Adverse Impacts:

- ▶ The Guidelines require that appropriate and practicable steps be taken which minimize the adverse impacts to the aquatic ecosystem. The draft RSEIS presents alternatives which minimize adverse impacts to the aquatic ecosystem (i.e., Alternative 7-2), but were not carried forward for full analysis. All practicable project alternatives which minimize adverse impacts to the aquatic ecosystem, including the effects to wetlands of reduced inundation, should be evaluated pursuant to the 404(b)(1) Guidelines.

12

12. All feasible alternatives were evaluated pursuant to Section 404(b)(1) guidelines. Six infeasible alternatives were also evaluated. These include Alternatives 3-2A, 3-2B, 3-2C, 3-3A, 3-3B, and 3-3C. Alternatives 7-2 and 7-3 were determined to be infeasible. The reasons for their elimination from detailed analysis are clearly presented in the report.

- ▶ After efforts to minimize impacts to the maximum extent practicable have been exhausted, compensation for remaining unavoidable impacts is required. The draft RSEIS explores potential mitigation sites that could be purchased and restored to provide compensation for the loss of aquatic habitat affected by the proposed project. [In light of proposed impacts to such valuable and limited resources as floodplain forested wetlands, mitigation efforts should place considerable focus on not only this specific wetland type, but also on areas in which restoration of natural hydrologic connectivity is attainable.]

13

13. 8,375 acres of currently cleared land will be reforested as part of the mitigation proposed for the recommended plan, doubling forested wetland in the project area. As a result, overall forested wetland acreage in southeast Missouri will increase approximately 16 percent, from about 50,000 acres to more than 58,000 acres. Of the over 26,000 acres of identified potential mitigation lands, a substantial portion possess the desired hydrologic attributes and will receive backwater flooding from the Mississippi River during two-year flood events.

Subsequent legislation (Water Resources Development Act of 1986) provided for the St. Johns project, which includes the channel work and the St. Johns and New Madrid pump stations. This legislation is based upon the Chief of Engineers report dated January 3, 1983. The stated planning objectives in this report were: the reduction of backwater flood damages due to high Mississippi River stages to agricultural lands in the St. Johns Bayou Basin and New Madrid Floodway; the reduction of damages to agricultural lands due to headwater flooding in the St. Johns Bayou due to inadequate channel capacities; the reduction of damages due to head water flooding to agricultural lands in the New Madrid Floodway; and the reduction of urban flood damages in the St. Johns Bayou Basin.

Note that these purposes that are directly taken from the respective authorization do not state a required level of protection, but rather general flood protection from Mississippi River backwater flooding and headwater flooding to agricultural lands in both basins and urban flooding in St. Johns Bayou Basin. The authorizations do not require a 10-year levee of protection, a 30-year level of protection, or a 50-year or greater level of protection. Corps of Engineers Planning Guidance (ER 1105-2-100, Guidance for Conducting Civil Works Planning Studies) is the only additional item that limits the scope of alternatives considered to accomplish the project purpose.

If the Corps were to follow the EPA desires to further define (refine) the project purpose, it would create an atmosphere that could predetermine the outcome of the planning/NEPA study. An example how this could occur is for an otherwise suitable alternative to be prematurely or inappropriately dismissed. This is against the letter and spirit of the NEPA program. In a sense, the general project purposes allow for the evaluation of many alternatives and the Corps planning guidance and evaluation procedures is merely an elimination and optimization process. To take alternatives that analysis indicates will be well below unity out of the detailed analysis is an appropriate reason to terminate further evaluation of that particular alternative.

The EPA is concerned that several of the proposed mitigation sites screened in Appendix L of the draft RSEIS may not exhibit hydrologic connectivity to the degree that impacts on the frequency, duration, and extent of natural riverine flooding to project area wetlands can be correspondingly and satisfactorily compensated for.

14

14. The Corps agrees that not all 15 potential mitigation sites would retain hydrological connectivity through backwater to the Mississippi River. However, Donaldson Point (about 2000 acres) and Headwater Diversion (about 900 acres) would clearly retain hydrologic connectivity and be subjected to frequent two-year flood events. Also, the Recommended Plan includes modified gate operation so that connectivity is enhanced on lands in the floodway up to elevation 284.4. These lands, primarily in the Eagle's Nest area, may be considered as desirable mitigation lands. Additionally, any mitigation land that is procured in this project area will become a wetland and function as such, whether the area is subjected to backwater flooding or just headwater flooding. In other words, there are 8,375 acres of currently cleared land that could be reforested under this project. The floodway only has about 7,200 acres of bottomland hardwood below 300 feet NGVD currently. This is more than a 120% potential increase in forested wetlands.

▶ We are also concerned that no information is provided that would indicate the feasibility of obtaining these mitigation lands and how the Corps would address mitigation needs should these lands not be available from willing sellers.

15

15. Please refer to response #13 above. The Corps has addressed how it would handle mitigation needs should these lands not be available from willing sellers. Much more potential mitigation land than is actually required was identified and evaluated. The Corps knows of no more certain way of handling this uncertainty prior to the Final RSEIS and the ensuing Record of Decision. Mitigation must be accomplished concurrently with project construction; therefore, it is clearly in the best interest of the Corps and the local sponsor to obtain suitable mitigation lands as expeditiously as practicable.

▶ While proposed fishery mitigation is predicated upon the modeling outputs of HEP (Habitat Evaluation Procedures), the underlying assumption of this modeling output is that the mitigation land must achieve hydrologic equivalence with lost functional acreage on an annual average basis. The draft RSEIS does not provide information regarding the temporal equivalence of proposed mitigation to impacted project area wetlands. Additionally, the high replacement ratios for forested wetlands in the mitigation guidelines of the State of Missouri are indicative of the functional value and rarity in the state, as well as the time taken to populate a community of mature trees and the difficulty in replicating all lost functional values.

16

16. Mitigation planning is based on reforestation of prior converted cropland; therefore, mitigation lands would be similar in flood frequency to impacted lands in the lower floodway. Benefits to the fishery would be almost immediate. As soon as lands are taken out of agricultural production and become fallow or planted, they provide some cover and stability and offer significantly improved fish habitat. Quality of habitat will obviously improve over time. Regarding State of Missouri replacement ratios for forested wetlands, there will be almost no bottomland hardwood losses that would require replacement, although there would be some functional impairment due to a reduction in backwater inundation. The Corps does not believe there would be indirect losses due to clearing, as USFWS believe there would be. If there was an attempt to clear project area bottomland hardwoods, regulatory guidelines require that they be mitigated and that would be a separate issue from this project. The Corps believes that, considering the planned mitigation measures, there would be a significant net gain in functional values overall associated with bottomland hardwoods within the project area.

4. Clean Water Act Section 404(b)(1) Guidelines 230.11(g) and (h) – Determination of Cumulative and Secondary Effects:

▶ An adequate Guidelines analysis must not be limited to the project's direct effects from the discharge of dredged and fill material, but the analysis is to also include a determination of secondary and cumulative effects of the project. The draft RSEIS evaluation was based on a narrowly constrained analysis of the direct impacts of "dredge and fill" activities associated with the proposed project features. The Guidelines' evaluation in the draft RSEIS neglects to include the necessary analysis of indirect, secondary and cumulative effects of the project.

17

17. Noted, the final document has been expanded to further address these areas of concern.

Project Alternatives to Avoid and Minimize Wetland Impacts and Protect Communities

▶ Concomitant with the preparation of this draft RSEIS, an interagency working group composed of EPA, Department of the Army, Corps of Engineers, and FWS coordinated in the preparation of several more environmentally acceptable project alternatives, including additional levee setback locations to avoid impacts to aquatic resources and non-structural measures to meet stated project objectives. This was done in accordance with Assistant Secretary of the Army guidance that additional levee setbacks to the proposed 1,500 foot gap-closure alignment be evaluated. Two of the four setbacks devised by the interagency working group were evaluated in this document. However, two additional setback proposals, as well as seven other project alternatives were determined to be unfeasible and, therefore were eliminated from further detailed study.

- Several project alternatives were eliminated from detailed study in the draft RSEIS (RSEIS, pp. 8-12). One of the reasons asserted for their elimination was their limited economic benefit. Tables 19 and 28 of the Economics of Alternatives Analysis present separate comparisons of benefit-to-cost ratios for the Mississippi River Levee (MRL) features versus the First Phase features for all project alternatives (RSEIS, App. B, pp. 24, 37). Table 29 presents the benefit and cost data, incorporating all project features (MRL + First Phase) of the National Economic Development (NED) plan alternative, exclusively (RSEIS, App. B, pp. 38). However, the document does not present a similar analysis of the benefit and cost data, incorporating all applicable project features for each of the other proposed alternatives. Absent comparative analysis of the benefit and cost data of all project features for each of the proposed alternatives, including Avoid and Minimize Options Four and Five (Alternatives 7-2 and 7-3), the document may preclude detailed study of additional economically justified, less environmentally detrimental alternatives.
- EPA has previously recommended that the Corps consider specific structural approaches (e.g., road upgrades, municipal storm-water management plans, etc.) coupled with non-structural measures to best address the needs of the local communities. Such approaches would not only reduce flood damage, but may also bring significant, sustainable, tangible economic benefits (e.g., tourism, hunting leases, timber income, recreational expenditures), as well as intangible benefits (e.g., water quality, wildlife and fisheries habitat) to the project area while maintaining a nationally significant and sustainable floodplain ecosystem for fish and wildlife.

Forested Wetlands: a Unique and Threatened Resource

- Bottomland hardwood forests are one of the most severely impacted wetland ecosystems in the United States. In the U.S. Fish and Wildlife Service's (FWS) recent *Report to Congress on the Status and Trends of Wetlands in the Conterminous United States 1986 to 1997*, it was found that during the study period, forested wetlands experienced the greatest decline of all wetland types, with a loss of 1.2 million acres, a 2.4 % change. There are fewer forested wetlands now than at any time in the Nation's history. A portion of this loss is attributed to clearing and drainage for agriculture. Specifically, in some regions of the lower Mississippi floodplain, only a very small percentage of original bottomland hardwood forests remain. Historically, human-induced alterations have reduced the natural floodplain of the lower Mississippi River by 90%. The New Madrid Floodway currently is the only remaining tributary floodplain still connected to the Mississippi River in Missouri (RSEIS App. E, pp. 14-21).

The Missouri Resource Assessment Partnership (MORAP), using 1991-1993 imagery with 30 meter resolution, estimates there are approximately 7,066 acres of bottomland hardwoods and woodlands remaining in the St. Johns Bayou Watershed, which encompasses both the St. Johns Bayou Basin and the New Madrid Floodway (USGS HUC 8 level watershed number 8020201). If up to 4,100 acres of forested wetlands are impacted, it would account for impacts to approximately 58% of the existing forested wetlands in that hydrologic unit.

- Big Oak Tree State Park (a National Natural Landmark), located within the project area floodway, is the only sizeable tract of uncut bottomland hardwood forest remaining in the Missouri portion of the Mississippi River floodplain. Yet, this unique and significant ecosystem is slowly drying out due to the effect of previous hydrologic alterations, including a reduced hydroperiod from Mississippi River flooding, due to levee construction. Studies have concluded that the park's flora are changing toward drier species, altering the ecosystem from wet-mesic bottomland hardwoods to a drier forest type. Many of the larger oaks have fallen due to old age, but little or no regeneration is taking place (RSEIS, p.35). EPA has concerns that some of the RSEIS alternatives could further alter the natural hydrology of project area wetlands and exacerbate conditions at Big Oak Tree State Park, but that this current state of degradation forecasts future impacts to similar wetland types within the project area, if proposed project features are constructed.

18

18. The Avoid and Minimize Options referred to in the comment are refinements of the gate closure and start-stop pump elevations to reduce potential environmental effects. These options were analyzed only for potentially economically feasible Closure Levee locations. The economic effect of these options is a lowering of an alternative's expected benefits and mitigation costs. Since the benefits for the Closure Levee at locations 7-2 and 7-3 could not support even the direct construction costs, there was no need to refine benefit-mitigation cost tradeoffs. Alternatives 7-2 and 7-3 are unsound investments under both authorized or Avoid and Minimize Options. As such, additional or more detailed analysis of these alternatives offers no value added to a decision maker.

19

19. Silviculture and urban protection measures were evaluated in the document. They were determined to not accomplish the project purpose and provide a favorable benefit to cost.

20

20. Please refer to EPA Response #9.

21

21. The recommended plan, Alternative 3-1.B, will reduce inundation on less than 13,205 acres of wetlands. The Corps' position is that all forested jurisdictional wetlands will retain jurisdictional status. As a result, the maximum potential loss of jurisdictional wetlands (from those not currently forested) will be less than 7,418 acres of farmed wetlands. Furthermore, the Corps, in consultation with DOI, has proposed mitigation for the recommended plan that will result in the reforestation of 8,375 acres of previously cleared lands in or near the project area. This reforested acreage will become jurisdictional wetland. As a result, forested wetlands in the project area will be more than doubled.

22

22. The Corps, in conjunction with representatives of MDNR, has developed a plan to enhance the water management for the park. It will be implemented in conjunction with other project construction and is supported by MDNR staff. This plan is described in attachment 2 to Appendix L.

Specific Comments

Page 5, 2nd and 4th paragraphs. These paragraphs indicate that the 1,500-foot levee gap would require 233,000 cubic yards of fill and the setback levee height would need to be increased. How much total borrow is needed, and where will this be obtained?

23

23. Approximately 2,400,000 cubic yards of material will be needed for construction of the New Madrid levee closure and the 12-mile grade raise on the setback levee. This grade raise will begin at the intersection of the floodway closure and the setback levee and extend upstream to the vicinity of Missouri Highway 102. Suitable material from the enlargement of St. Johns Bayou and the Birds Point New Madrid Levee Ditch will be used for the closure and the grade raise construction. Approximately 2,700,000 cubic yards will be excavated from these reaches. Of this amount, it is anticipated that more than 50 percent will be suitable for use in the construction of the closure and grade raise. The remainder will be obtained from borrow pits along the setback levee. Up to 80 acres of new borrow area may be needed. The borrow site(s) will be located in cleared, non-wetland areas. The amount of new borrow will be decreased if more of the material for channel excavation than anticipated is suitable for levee construction. The amount of new borrow area may also be decreased if suitable material is available in existing borrow pits along the setback levee and if removal of sediment from existing borrow pits is desirable for fish and wildlife habitats

Page 99, Section 5.17.3, Future, 3rd paragraph. The document states, "The Corps, based on qualitative hydraulic and geotechnical reviews, determined that these wooded wetlands would remain saturated and continue to be jurisdictional under Section 404 of the Clean Water Act and FSA." EPA points out that while the jurisdictional status *may* be preserved, the functional value *will* change.

24

24. The Corps agrees that there would be some loss of functional value due to the reduction in backwater inundation and has quantified this as part of the project development. The Corps also points out that there will be a great increase in functional value for up to 8,375 acres (for the recommended plan) of cleared lands placed back into forested wetland status under the mitigation plan.

Page 105-108. EPA urges consultation with Federal Emergency Management Agency, especially regarding information presented in Appendix K, "Floodway Operations." Of particular note is the determination on page K-5 that "Currently, based upon the authorized level of flood protection, the expected frequency of floodway operation is on the average of 1 in 80 years (60 feet on the Cairo gage)". This frequency of operation may induce renewed evaluation of alternatives by which Pinhook and other New Mad Floodway communities could receive government-assisted flood relief.

25

25. Noted.

Appendices B, C and K. It is unclear whether or not flowage easements would need to be purchased on lands below elevation 300' NGVD, with implementation of a levee closure. [If so, how would this cost of purchasing flowage easements affect the economics analysis?]

26

26. Those costs, whether they are required or not, would not be considered under this particular project. The flowage easements are required due to the floodway authorization that is part of the Flood Control Act of 1928. If the floodway were de-authorized, there would be no requirement for any flowage easements. Therefore, any economic impacts due to flowage easements that are part of the floodway project are properly accounted for in the floodway project. The 1954 Flood Control Act that authorized the closure of the floodway did not otherwise affect the authority to operate the floodway. Therefore, these flowage easements do not affect the costs of this project at all.

Appendices D and F, page 1 in both appendices. The square miles of drainage for the St. Johns Bayou Basin do not agree. In Appendix D, the drainage area is listed as 450 square miles, while Appendix F, states that the basin is 507 square miles.

27

27. The St. John's Bayou Basin drains an area 450 square miles. There is a smaller area north of Interstate 57 and east of Charleston that is typically considered part of the St. John's Bayou basin, but actually drains into the Mississippi River at the Drinkwater outlet and pumping station structures. This outlet is to the west of Cairo and well upriver from the St. John's Bayou gravity outlet structure. This is also stated in the section on Affected Environment (Section 3-1, page 13) and on Table 3-1. Any references to 500 or 506 square miles will be deleted and the more accurate area used.

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**LANIE BLACK
STATE REPRESENTATIVE · DISTRICT 161**

The third sentence of our Declaration of Independence contains the phrase ".....Governments are instituted among men, deriving their just powers from the consent of the governed." I intend to show that articles on the front pages of two of our nation's urban newspapers grossly misrepresented the intent of the SJNM Floodway project to their readers and that type of misrepresentation creates and firms the attitudes that provide "the just power from the consent of the governed" for a kind of environmentalism that will be detrimental to our nation if it continues without debate for the next several years. I believe for many years, environmental policy in this nation has been shaped by fanatics with access to a liberal media who have molded a majority opinion by abusing the original intent of the Clean Water Act and the Endangered Species Act.

On Sunday, May 9, 1999, on the front page accompanied by a large color picture, the St. Louis Post Dispatch wrote in its opening sentence about the SJNM Project; "Imagine the federal government spending \$65 million to drain more than 30,000 acres of wetlands,..." The initial sentence on the front page of the Washington Post on Sunday, September 10, 2000 (also accompanied by a large color picture) read "The developer of a huge project to control flooding in Missouri's soggy southeastern bootheel expects to drain 36,000 acres of wetlands along the Mississippi River".

Webster's defines drain---"to draw water or any liquid from so as to dry or empty", he defines flood---"an overflowing of water on an area normally dry; inundation;...". Permit me to assure everyone in this room and any potential readers of my remarks that it is not now nor has it ever been the purpose or intention of the SJNM Project to drain one additional acre in the New Madrid Floodway or in the St. Johns Bayou. The project's purpose is to control flooding. All of the drainage that will ever be done has been completed since 1950. I spent the entire afternoon yesterday taking pictures in the floodway; there is no water to drain in the floodway.

Now let us consider the term "wetlands". According to the U. S. Department of Agriculture Soil conservation Service Manual, "wetlands" meets the following three criteria:

1. It is a wet area that is not normally cropped.
2. It has wet, saturated soil, or is flooded during some part of the growing season.
3. It would support plants that like wet soils (cattails, willow trees, pin oaks, sedges, some smartweeds, etc.) if the area were not disturbed by tillage, mowing, or similar actions.

In my opinion, there is nothing of tremendous significance contained in those criteria. I would hasten to point out that many of the yards in our nation's finest suburbs will comply with the agricultural criteria for wetland. Webster's defines wetland---"swamps or marshes". I believe when urban residents read that the intent of the project is to drain 36,000 acres of wetlands, their reading conjures up thoughts of a massive attempt to ditch and drain 36,000 additional acres of land that is at least partially covered with water during most of the entire

The Corps appreciates your interest in the project and thanks you for your letter.

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12 months of the year, that the land is mosquito and snake infested, and that a number of endangered species will be severely adversely effected by that drainage. The aforementioned urban newspapers have not conveyed the true facts to their readers. If their error was unintentional they should correct the mistake in the interest of journalistic accuracy. If the error was an intentional misrepresentation, readers should begin to seriously question the integrity of the authors and the credibility of the papers.

Dr. Joseph Westphal, Assistant Secretary of the Army for Civil Works, visited the area and was quoted in the Enterprise Courier as saying, "It doesn't look anything like what I pictured.... there is a 'tremendous misunderstanding of what is here. I didn't picture it, the vast amount of agriculture going on here'". Gail C. Seible of Ballwin, MO., NWF board member and CFM member visited the area for five hours with Liz Anderson; her letter to the staff of NWF and CFM concludes with this paragraph:

As a member of NWF and CFM an individual interested in conservation, a retired teacher of ecology, I do have opinions about this region. They are not scientifically based, they are experientially based. I believe one can not turn back the clock of time and actions. I do believe that mitigation and compromise for conservation is a possibility in this area. I believe that the compromise is the key to ensuring an increase in conservation practices in the Delta.

I have also included five (5) appendices. Respect for other's time prohibits my reading each one. They are horror stories that result when fanatic environmentalists dominate the development of public policy. I will comment briefly on each one.

Finally, I consider myself to be a conservationist. I support the continents that have been or will be made this evening. All of the local people involved with the SJNM Floodway Project are good conservationists. We believe we can provide superior habitat and environment for all species of birds when the project is completed. We also recognize the project will be detrimental to some species of fish at various times; we believe we have mitigated adequately for those species of fish. We believe the gap should be closed.

Why is DDT so important? Aren't there plenty of other pesticides that can be used? The answer is yes, and no.

DDT acts primarily as a mosquito repellent, not as a killer. Research by Don Roberts, of the Uniformed Services University of the Health Sciences, has shown that only 3% as many mosquitoes enter huts sprayed with DDT compared with huts sprayed with the most widely used alternative pesticide. Moreover, in DDT-sprayed huts, most mosquitoes immediately leave without biting. As Dr. Roberts notes from his uncomfortable personal research, "the whole time the mosquitoes were in huts sprayed with the other pesticide, they were actively biting us."

DDT's effectiveness as a mosquito repellent lasts for six months or more. This compares very favorably with the shorter duration and less effective nature of alternative pesticides that cost three to four times as much.

In a nutshell, nothing is as cheap, or as effective, as DDT. While wealthy nations can afford more expensive, less effective pesticides such as the pyrethroid that New York is currently spraying-poorer nations have few alternatives to DDT other than death and suffering.

But isn't DDT a danger to people? So Rachel Carson claimed in her 1962 book, "Silent Spring." But as a recent article in the Lancet, a British medical journal notes, we have yet to find a single significant health threat from DDT use even after 40 years of exhaustive research. Yet activists have succeeded in convincing the public that DDT is so evil that we should accept the suffering and death of millions in poor countries to save the world's paranoid wealthy from theoretical health risks we still can't identify. That is Ms. Carson's shameful legacy.

APPENDIX D
Reprinted from the Wall Street Journal, July 26, 2001

RURAL CLEANSING

Federal authorities were forced to cut off water to 1,500 farms in Oregon's and California's Klamath Basin in April because of the "endangered" sucker fish. The environmental groups behind the cut-off continue to declare that they are simply concerned for the welfare of a bottom-feeder. But last month, those environmentalists revealed another motive when they submitted a polished proposal for the government to buy out the farmers and move them off their land.

This is what's really happening in Klamath-call it rural cleansing-and it's repeating itself in environmental battles across the country. Indeed, the goal of many environmental groups-from the Sierra Club to the Oregon Natural Resources Council (ONRC)-is no longer to protect nature. It's to expunge humans from the countryside.

The Greens' Strategy

The strategy of these environmental groups is nearly always the same: to sue or lobby the government into declaring rural areas off-limits to people who live and work there. The tools for doing this include the Endangered Species Act and local preservation laws, most of which are so loosely crafted as to allow a wide lee-way in their implementation.

In some cases owners lose their property outright. More often, the environmentalists' goal is to have restrictions placed on the land that either render it unusable or persuade owners to leave of their own accord.

The Klamath Basin saga began back in 1988, when two species of suckers from the area were listed under the Endangered Species Act. Things worked reasonably well for the first few years after the suckers were listed. The Bureau of Reclamation, which controls the area's irrigation, took direction from the Fish and Wildlife Service, and tried to balance the needs of both fish and farmers. This included programs to promote water conservation and tight control over water flows. The situation was tense, but workable.

But in 1991 the Klamath basin suffered a drought, and Fish and Wildlife noted that the Bureau of Reclamation might need to do more for the fish. That was the environmentalists' cue. Within two months, the ONRC-the pit bull of Oregon's environmental groups-was announcing intentions to sue the Bureau of Reclamation for failure to protect the fish.

The group's lawsuits weren't immediately successful, in part because Fish and Wildlife continued to revise its opinions as to what the fish needed, and in part because of the farmers' undeniable water rights, established in 1907. But the ONRC kept at it and finally found a sympathetic ear. This spring, a federal judge-in deciding yet another lawsuit brought by the ONRC, other environmental groups, fishermen and Indian tribes-ordered an unwilling Interior Department to shut the water off. The ONRC had succeeded in denying farmers the ability to make a living.

Since that decision, the average value of an acre of farm property in Klamath has dropped from \$2,500 to about \$35. Most owners have no other source of income. And so with the region suitably desperate, the enviros dropped their bomb. Last month, they submitted a proposal urging the government to buy the farmers off.

The council has suggested a price of \$4,000 an acre, which makes it more likely owners will sell only to the government. While the amount is more than the property's original value, it's nowhere near enough to compensate people for the loss of their livelihoods and their children's futures.

The ONRC has picked its fight specifically with the farmers, but its actions will likely mean the death of an entire community. The farming industry will lose \$250 million this year. But property-tax revenues will also decrease under new property assessments. That will strangle road and Municipal projects. Local businesses are dependent on the farmers and are now suffering financially. Should the farm acreage be cleared of people entirely, meaning no taxes and no shoppers, the community is likely to disappear.

Nor has the environment won, even at this enormous cost. The fish in the lake may have water, but nothing else does. On the 200,000 acres of parched farmland, belonging to dozens of species-rabbits, deer, ducks, even bald eagles-are either dead or off searching for water. And there's no evidence the suckers are improving; Indeed, Fish and Wildlife's most recent biological opinions, which concluded that the fish needed more water, have been vociferously questioned by independent biologists. Federal officials are now

releasing some water (about 16% of the normal flow) into the irrigation canals, but it doesn't help the farmers or wildlife much this year.

Environmentalists argue that farmers should never have been in the "dry" Klamath valley in the first place and that they put undue stress on the land. But the West is a primarily arid region: its history is one of turning inhospitable areas into thriving communities through prudent and thoughtful reallocation of water. If the Klamath farmers should be moved, why not the residents of San Diego and Los Angeles, not to mention the Southwest and parts of Montana and Wyoming? All of these communities survive because of irrigation-water that could conceivably go to some other "environmental" use.

But, of course, this is the goal. Environmental groups have spoken openly of their desire to concentrate people into cities, turning everything outside city limits into a giant park. A Journal for the Rocky Mountain News recently noted that in June the Sierra Club posted on its Web site a claim that "efficient" urban density is about 500 households an acre. This, in case you're wondering, is about three times the density of Manhattan's most tightly packed areas. And it's not as if there were any shortage of open space in the West. The federal government already owns 58% of the western U.S., with state and local government holdings bumping the public percentage even higher.

Balanced Stewardship

Do the people who give money to environmental groups realize the endgame is to evict people from their land? I doubt it. The American dream has always been to own a bit of property on which to pursue happiness. This dream involves some compromises, including a good, balanced stewardship of nature-much like what was happening in Klamath before the ONRC arrived. But this dream will disappear-as it already is in Oregon and California-if environmental groups and complicit government agencies are allowed to continue their rural cleansing.

APPENDIX E

Reprinted from *The Wall Street Journal* April 17, 2000

THE SALAMANDER THAT ATE THE GRAPES

If Oscars were awarded for eco-dramas, the envelope would go to California. The latest installment is over a critter known as the California tiger salamander, which likes to make its home in vineyards. Environmentalists, long appalled at the spread of vineyards at the expense of trees, are finding this mysterious little reptile a useful tool with which to crush the wine industry. In the process, property owners are finding their land is being held hostage.

All over Sonoma, Santa Barbara and San Bernadino counties, hillsides have been cleared to make way for what some Californians see as yet further eyesore vineyards. "Grapescape," sneers the Santa Rosa Press Democrat. Another paper offers the ultimate insult: "Wine is big business."

Over the past few years, the antigrape activists have tested out various angles for slowing down the booming wine industry. They've been successful in some areas in getting ordinances requiring permits for cutting down trees on private land. They've enacted a hillside vineyard rule to stop vintners from sticking their trellises on any hill with a more than 50-degree incline. Now they believe they've hit the jackpot; the California tiger salamander.

A colorful slimy-skinned creature that dines on snails and slugs, the salamander's existence was never a very big deal in California until it was adopted by environmentalists. In January, the U.S. Fish and Wildlife Service gave the tiger salamander an emergency listing as an endangered species. As a result, anyone who "wounds, harms or harasses" it can face a \$50,000 fine under federal law.

With the threat of those kinds of damages, some vintners have found themselves effectively barred from using their land - an action otherwise known as a "taking" under the Fifth Amendment to the Constitution. The amendment stipulates "no person ... shall be

deprived of life, liberty or property ... nor shall private property be taken for public use without just compensation."

Fat chance. The abuse of eminent domain and regulatory flat, without any payment to the property owner, still occurs frequently, and not just in California. In a Florida case that the Supreme Court let stand this month, an owner was prohibited from building on his property because it might be home to the Lower Keyes marsh rabbit and the silver rice rat. Then there's the Iowa Pleistocene snail, whose recovery plan suggests that affected landowners will have to abort all development until there's "a return to glacial conditions over the major part of the upper Midwest."

Suffice it to say that the California wineries are facing an uphill battle. The tiger salamander has now been officially designated an emergency species, even though the emergency has little to do with the salamander and everything to do with opposition to what some call "industrial vineyards."

Such use of the species-protection law has become so routine that even some animal lovers have begun to question whether the act has been hijacked from its original mission. In 1997, a National Wildlife Institute study found that in the law's 25-year history not a single species had recovered despite federal efforts on its behalf. The bald eagle is one of the few success stories and it will likely come off the list later this year. But the salamander is hardly in the same category as the national bird, and in any case that's not much of a track record. As the Institute's Rob Gordon points out, "eventually you realize that recovery is not the goal."

Just what is the goal? The U. S. Fish and Wildlife Service has turned itself into the de facto land-use regulator. According to numerous critics, the approach is first to look for a habitat it would like to save and then to hunt up an "endangered" species to justify invoking the draconian provisions of the law.

In the case of the California tiger salamander, almost nothing is known about the animal, its habitat its population or even whether it is really native to California. As property-rights expert Richard Epstein of the University of Chicago points out: "It may well be that the salamander is there because of the farming, or it could have been blown off course by a hurricane. They just don't know."

For the property owners in Santa Barbara County and elsewhere, the situation is poised to spin out of control. Finding a salamander corpse in their vineyards could mean fines or even jail time. Some have had to put development plans on hold. Meanwhile the biggest wineries in California are working overtime to prove their environmentally friendly stripes: When Kendall-Jackson bought new vineyard land near Bloomfield, it swore up and down that it would "not cut a single tree."

As always, the more complex the regulation, the more it favors those who are politically well-connected and able to navigate the hurdles. Many of the Sonoma vintners are small operators who have owned their land for a long time and can no longer make a profit under the shower of new regulations. Yet they stand little chance of ever winning compensation.

For the small-timer, cases like these are almost impossible to litigate. Each suit has to meet certain standards for "ripeness" and go through both local and state jurisdictions before it can reach the federal level. Part of the reason is the Fish and Wildlife Agency's keen interest in avoiding any talk of compensation. If it ever had to shell out taxpayer money to pay for its actions against private landowners, unwanted congressional scrutiny would be sure to follow. Legislators might even be tempted to curb the agency's carte-blanche to regulate land use in the name of endangered critters. The Senate Judiciary Committee last month approved legislation (bitterly opposed by environmentalists) that would let property owners bypass state courts and take their land disputes directly to federal courts.

In its version of a concession to landowners, the Fish and Wildlife Agency has turned its power into a kind of eco-racket. Last month the House Resources Committee launched an investigation into its management of "wildlife and sport fish trust funds," which are partially financed by "contributions" from private landowners in return for the agency's permission to build on their own property. One wonders if the hat is ready to be passed around California's affluent wine country.

As for the poor tiger salamander, it might conceivably be in the public interest to protect it. But if it's worth protecting, it's worth paying for-and that's the responsibility of the public, which is to say the tax payer, and not that of the property holders who have the bad luck to be giving it a home.

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**LANIE BLACK
STATE REPRESENTATIVE · DISTRICT 161**

December 10, 2001

Commander - Memphis District
U.S. Army Corp. of Engineers
Attn: CEMVM-PM-E
167 North Main St., B-202
Memphis, TN 38013-1894

Dear Colonel Scherer:

We are the State Senators and Representatives for the entire region of Southeast Missouri commonly referred to as the "Bootheel". Most of us were born and raised in the area; all have lived all or most of their lives here. We are familiar with the people, culture, and history of the area with the St. John's Bayou/New Madrid Floodway Project; and we all support the project. We note that the Revised SEIS does not contain a preferred option and desire to express our thoughts in regards to that document.

First, we strongly support option #1 of the New Madrid Floodway, Closure Options. Option #1 requires construction of only 1,500 feet of levee; it was/is the original proposal by ACE. It has the highest cost/benefit ration and provides the greatest amount of flood protection. Option #1 was authorized by Congress in 1954 and would require no further consideration by that institution.

Second, the Avoid and Minimize pump start/stop elevations of 282.5/280.5 must be maintained after April 15. We note that these levels are 4.5 feet higher for start and 5.5 feet higher for stop than those proposed in the phase IIGDM 101 of July 1985 (p.xx). We can accept the Annual Fish start/stop elevations of 284.4/283. from the conclusion of harvest (usually sometime in November) until January 31. We believe local drainage districts should be able to control New Madrid Floodway/St. John's Bayou levels between January 31 and April 15 based on river levels, rainfall, and other local conditions.

Third, we believe that the proposed 9,557 acres for mitigation is excessive. The Phase II GDM 101 calls for 2,500 acres in the Ten Mile Pond area as mitigation for approximately 143 miles (p. xix) of ditch improvements. Today the proposal calls for approximately 23 miles of ditch improvements while adding 4.5/5.0 feet to pump start/stop elevations are increased by 4.5/5.0 feet respectively; it would seem that required mitigation would decrease proportionately to increases in start/stop levels and a decrease in ditch improvements.

Additionally, we would insist that no government agency ever be provided the authority to condemn the property it would prefer for mitigation; mitigation acres must come only from willing providers.

- 1. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 3-1.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.
- 2. The Corps, in coordination with various regulatory and resource agencies, developed such measures in order to lessen project impacts to various natural resources, including project area water quality, fisheries, wildlife, and wetlands. The Corps believes the currently proposed mitigation plan as well as the avoid and minimize measures are appropriate for implementation of the recommended plan.
- 3. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan.
- 4. Noted.

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We believe this project provides significant agricultural, social, economic and environmental benefits to Scott, New Madrid and Mississippi Counties. We recognize there are some negative aspects for some species of fish on those occasions when the Mississippi River floods during spawning season, but the river doesn't always flood during spawning season. Sometimes it floods prior to or after fish spawn. Whether a flood occurs before, during, or after spawning season, if it is a severe flood, costs to people and wildlife can be enormous. Completion of the St. John's Bayou/New Madrid Floodway Project will permit control of future floods and elimination of the devastation that accompanies them.

Sincerely,

Rep. Lanie G. Black, III
District 161

Senator Peter Kinder
President Pro-Tem

Senator Bill Foster
District 25

Rep. Mark Richardson
District 154

Rep. Denny Merideth
District 162

Rep. Peter Myers
District 160

Rep. Phillip Britt
District 163

Rep. Robert Mayer
District 159

PETER C. MYERS, SR.
State Representative
District 160

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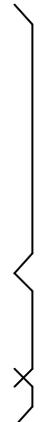
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**MISSOURI
HOUSE OF REPRESENTATIVES**

TO: Commander - Memphis District
U.S. Army Corps of Engineers
Attn: CEMVM-PM-E
167 North Main St, B-202
Memphis, TN 38013-1894
RE: New Madrid Floodway & St Johns Drainage projects
DATE: December 7, 2001

As a life long resident of New Madrid and Scott counties I have always been aware of the flooding problems in the New Madrid Floodway and the St Johns Drainage area. St Johns negatively impacts Scott County all the way to the Benton Hills when there is excessive flooding in the lower St Johns Drainage areas. Completing these projects as proposed in the NED would also lower the FEMA & SEMA designated flood level in significant parts of Scott County, MO. This completion would allow more industrial development and home building in the flood risk areas of Sikeston and large parts of Scott County. My further comments are listed below:

1. Negative impacts if gates left open after April 15 at the 282.5 level: (A) Economic benefits reduced because farm land will take at least 3 weeks to dry up (if no rain) and thus would delay planting to late May or June & have reduced yields for corn, soybeans, rice and grain sorghum. (B) Higher water levels would negatively impact nesting birds and small mammals in the flood plain.
2. I support the gates being left open up to the 284.4' level from November until January 31.
3. I am opposed to allowing the gates being left open every third year up to the 288' level, because the river might be excessively high on that designated third year. A compromise might be to leave the gates open in years when the river is not excessively high. Hopefully this would average leaving them open every third year without designating the actual year that this must occur.
4. Mitigation acres are very excessive at 6500 acres to mitigate 107 (approx.) acres. I understand that fewer, but more desirable acres have been offered for mitigation in Bogel Woods and Donaldson point. It would seem to me that offering 2 or 3 acres for 1 acre would be much more reasonable than the ratio that is proposed for mitigation under any of the options.
5. I strongly support the levee closure at the shortest distance and the floodgates constructed in that levee as described in the NED or option I of your proposal.

- 
1. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 3-1.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.
 2. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan.
 3. Noted.

Thank you for the opportunity to comment on these very important, long overdue projects.

Sincerely,
Peter C. Myers, Sr.

M-51

JAMES C. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

March 11, 2002

Commander, Memphis District
U S Army Corps of Engineers
Attn: CEMVM-PM-E
167 North Main Street, B-202
Memphis TN 38103-1894

Re: Draft of Revised Supplemental Environmental Impact Statement for
the St. Johns Basin-New Madrid Floodway Project. (SERO 2001-108)

Dear Commander:

The Natural Resources and Environmental Protection Cabinet (NREPC) serves as the state clearinghouse for review of environmental documents generated pursuant to the National Environmental Policy Act (NEPA). Within the Cabinet, the Commissioner's Office in the Department for Environmental Protection **coordinates** the review for Kentucky State Agencies.

The Kentucky agencies listed on the attached sheet have been provided an opportunity to review a draft of the above referenced report previously. This *Revised Supplemental*, therefore, was distributed only to the previous responders. Of those five agencies, comments (attached) were received only from the Kentucky Division of Water.

If you should, have any questions, please contact me at (502) 564-2150, ext. 112.

Sincerely,

Alex Barber
State Environmental Review officer

Enclosure

The Corps appreciates your interest in the project and thanks you for your letter.

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**NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION
CABINET
ENVIRONMENTAL REVIEW**

Draft of Revised Supplemental
Environmental Impact Statement for the St.
Johns Basin-New Madrid Floodway Project

The following agencies were asked to review the above referenced project. Each agency that returned
will appear below with their comments and the date the project response was returned.

C denotes Comments

NC denotes No Comment
IR denotes Information Request
NR denotes No Response
NS denotes Not Sent for Review

REVIEWING AGENCIES:

Division of Water _____ comments
Division of Waste Management _____ ns
Division for Air Quality _____ ns
Department of Health Services _____ ns
Economic Development Cabinet _____ ns
Division of Forestry _____ ns
Department of Surface Mining Reclamation & Enforcement _____ ns
Department of Parks _____ ns
Department of Agriculture _____ ns
Nature Preserves Commission _____ nc
Kentucky Heritage Council _____ ns
Division of Conservation _____ nc
Department for Natural Resources _____ ns
Department of Fish & Wildlife Resources _____ nc
Transportation Cabinet _____ ns
Department for Military Affairs _____ ns

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JAMES C. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

MEMORANDUM

TO: Alex Barber
State Environmental Review Officer
Department for Environmental Protection

FROM: Timothy Kuryla
EIS Coordinator
Division of Water

DATE: October 16, 2000

SUBJECT: DR Supp EIS, Flood Control, New Madrid Floodway, Mississippi River
(Mississippi and New Madrid Counties, Missouri). SERO 011204-108

The Division of Water has reviewed the Draft Revised Supplemental Environmental Impact Statement prepared by the U.S. Army Corps of Engineers, Memphis District Office, regarding flood control in the New Madrid Floodway, Mississippi River, approximately River Miles (RMs) 889.5 to 955.5, Mississippi and New Madrid Counties, Missouri. This site is across from Ballard, Carlisle, Fulton, and Hickman Counties, Kentucky.

The Division of Water participated in previous reviews of the same activity:

SERO	Type	Date of Response
990804-46	D Supp EIS	September 30, 1999
000928-70	FEIS	October 16, 2000

The Division of Water observes that the proposed activity takes place in Missouri. The Division has no comment.

M-54

MISSOURI DEPARTMENT OF CONSERVATION

Headquarters

2901 West Truman Boulevard, P.O. Box 180, Jefferson City, Missouri 65102-0180
Telephone: 573751-4115 s Missouri Relay Center: 1-800-735-2966 (TDD)

JERRY M. CONLEY, Director

December 14, 2001

Colonel Jack V. Scherer, District Engineer
Memphis District, U.S. Army Corps of Engineers
ATTN: CEMVM-PM-E
167 North Main, Room B202
Memphis, Tennessee 38103-1894

Dear Colonel Scherer:

The Missouri Conservation Commission and Department of Conservation staff appreciate this opportunity to submit comments on the Revised Supplemental Environmental Impact Statement (RSEIS) for the Saint Johns Basin - New Madrid Floodway Project.

Our June 23, 1999, letter regarding the initial SEIS detailed concerns for the environmental impacts related to the flood control project. Those comments remain pertinent and are summarized as follows:

- ✓ Potential impacts affect more than 84,000 acres, at a river stage of 295 feet NGVD, which occurred in 10 of the last 35 years.
- ✓ Internal flooding and backwater can cover many thousands of acres of crop and forest land.
- ✓ The loss of connectivity between the floodplain and the Mississippi River is the single most significant project feature and its loss cannot, in reality, be mitigated.
- ✓ The few remaining forested acres are extremely important to neotropical migratory birds and, when flooded, to waterfowl, fish, herpetofauna and wetland associated mammals.
- ✓ The majority of the existing mussel species have relatively small populations, and the proposed areas to be dredged have the greatest diversity and abundance of the entire project area.

These project impacts will cause major declines in wetlands, their functions and inhabitants; fish spawning and rearing; mussels, birds, and waterfowl feeding sites during migration.

As stated previously, the single most significant project impact to the aquatic resources is the major reduction in the magnitude of seasonal flooding and connectivity to the Mississippi River. Levee closure in the New Madrid Floodway and pump operations will eliminate backwaters from covering the floodway and bayou basins. Connectivity between the Mississippi River and the floodplain provides important ecological interactions and cannot be

1. Concur; however, Corps analyses indicate 78,000 acres were impacted in 11 of the past 35 years.
2. Concur.
3. Refer to DOI/USFWS Responses #2, #7, and #8.
4. Concur.
5. The recommended plan involves one-sided channel enlargement to minimize impacts. Known mussel beds would be relocated prior to work. Hard points and rock work would improve mussel habitat in some areas. The Corps has committed to an extensive monitoring program to study mussel colonization.
6. The project would affect wetland functions associated with reduced backwater inundation. The mitigation plan for reforesting frequently flooded croplands would amount to a creation of project area wetlands. A primary impact of reduced backwater inundation was that the area would no longer be available for fish spawning and rearing. Mitigation was formulated to address this impact and it was determined that reforesting frequently flooded cropland would provide improved fish habitat. A mussel monitoring and relocation plan has been developed for the St. Johns Basin. Note that with mitigation, measurable fish and wildlife losses are fully compensated. Separable mitigation areas are proposed for shorebirds and reforested areas should result in improved habitat over existing conditions for neotropical migrants. Waterfowl habitat is improved overall with project implementation and, with mitigation, project impacts to waterfowl during spring migration is fully mitigated.
7. During project reformulation, gate operation has been further modified to ameliorate impacts to aquatic resources. Although the lower floodway would not be as valuable to fish as under existing conditions in terms of providing land area during the Spring for spawning and rearing, the

M-55

mitigated for in this project. Many species of fish move from the river into the floodplain in the spring to spawn. The gap closure will prevent that exchange.

Department staff have carefully reviewed the revised SEIS and suggest the following mitigation plan. While it will not sufficiently minimize or replace losses to the riverine ecosystem in Southeast Missouri, we have agreed with the local project sponsors to this compromise.

Wetlands/Waterfowl

Wetlands are complex, created and maintained in many different ways. The loss of connectivity will cause them to become isolated, depressional systems. Due to the soil types associated with these systems, many of them will not receive sufficient recharge due to the absence of overland flooding. Furthermore, work under the Mississippi River Mainline Levee project, such as installation of relief wells, seepage berms, and drainage ditches, will assure that precipitation and surface flows will be quickly evacuated. In effect, the project area will dry up.

There are two major points of concern for waterfowl: (1) the loss of flooding diversity; timing, duration and depth, would be controlled through pump operations, removing natural variability which contributes to the overall health and stability of the ecosystem, and (2) loss of protein sources, very important to waterfowl migrating to their breeding grounds, associated with cropland, moist soil and bottomland hardwood forests. These sites provide nutrition, secure roosting, cover in inclement weather, loafing sites, protection from predators, and isolation for pair formation.

Appendix L, **MITIGATION AND ENVIRONMENTAL FEATURES** states the Corps' intention to replace 100% of the waterfowl duck-use-days during the spring migration. We concur in the proposal to create a diversity of flooding duration and depths, November through March, by flooding up to 6450 acres of bottomland hardwoods and croplands annually. The timing and elevation of flooding in the bayou and floodway should be determined by the rivers elevation and open gates (or gates closed as needed to capture water if the river is low). The necessary reforestation will be included under that needed for fish rearing (pages 13,14). Shorebird habitat required for spring migration shall be provided per Table 10, Appendix L.

Terrestrial

At the onset of land clearing and drainage of Missouri's southeast lowlands, the site was entirely covered by bottomland hardwood forest. The few remaining acres are extremely important to neotropical migratory birds, reptiles, furbearers, and when flooded, to waterfowl, fish, and other wetland associated animals. The stated Mitigation Objective is to replace 100% of the terrestrial habitat units lost. A mixture of bottomland hardwood species would be planted on acreage acquired for fisheries mitigation requirements for the New Madrid Floodway (Appendix L, Table 8, page 30), and for mitigation requirements in the St. Johns Bayou Basin. Those acres, except for Bogle Woods and other lands surrounding Ten Mile Pond, should be planted at the lowest elevation possible on sites identified by the Memphis District, Corps of Engineers and should be acquired in fee title or easement to enable flooding without adversely impacting private lands.

mitigation lands, which would be frequently flooded reforested agricultural lands, would become far more valuable.

8

8. Refer to DOI/USFWS Responses #25 and #26. Relief wells and seepage berms are designed to maintain the structural integrity of the levee system. Drainage canals associated with relief wells are sized to carry the associated additional increment of flow. Actually, relief wells will increase the overall seepage of water into the basin in which they are located. Ditches are designed to keep from inducing additional damage from additional seepage flow. These measures will not lead to drying of the basin.

9

9. Gate operation in both basins afford the opportunity to provide over 6,000 acres of winter waterfowl habitat and, according to Waterfowl Assessment Methodology performed by USFWS, there will be a substantial increase in duck use days associated with the project. Additionally, mitigation lands will provide a substantial increase in waterfowl habitat. Increase in the gate operation in the New Madrid Floodway to 284.4 till May 15 offsets some of the springtime losses associated with the originally recommended avoid and minimize plan. MDC will be provided flexibility regarding gate operation to manage winter waterfowl habitat. The Recommended Plan provides an increase in waterfowl habitat over existing conditions. With mitigation, springtime losses to migrating waterfowl are more than fully compensated.

10

10. Concur.

11

11. Concur.

Fisheries

Killgore and Hoover, 2001, *Impacts of St Johns Bayou-New Madrid Floodway Flood Control Project on Fishes*, (Appendix G, page 8) noted that a flood typically occurring once every two years is necessary to maintain reproductive populations and that flood frequencies less than two years may result in successive reproductive failures in shortlived species. Therefore, maintaining connectivity to 290 feet (2-year flood event) is critical for fishes.

To minimize project impacts, levee alignment 4 or 5 is recommended with a gate operation that would allow flood water inflows to an elevation of 290 feet NGVD once in three years. However, closure alignment one (1) would be acceptable, depending upon gate operation and mitigation. The recommended gate operation would allow flooding through June 30 to 290 feet. However, a gate operation that would leave the gates in both basins open to 284.4 feet through May 15 annually and to 288 feet every third year is an acceptable compromise. In the event that the river does not exceed 284.4 feet following two seasons at that level, the next opportunity when the river reaches an elevation between 284.4 and 288 feet, the gates shall remain open through May 15. This operation scenario should be sealed with a legally binding agreement between the sponsors, federal and state agencies.

Permanent open water (Table 9, Appendix L) should be constructed at lower elevations providing the greatest chance of success.

Acceptability of Proposed Mitigation Sites

The following sites, or sites with similar characteristics, are suitable for mitigation of habitat losses:

- Site 10, New Madrid Floodway South
- Site 4, Eagle's Nest
- Site 1, Big Oak Tree State Park
- Site 14, St. Johns Bayou South
- Site 15, Ten Mile Pond and Bogle Woods
- Site 7, Hubbard Lake
- Site 12, Spillway Ditch

The Department feels the following sites are not acceptable, however, further discussion could modify this list of acceptability.

Dark Cypress Swamp: is too distant from the project area; **Donaldson Point:** elevation is too high for annual fishery benefit; **Gee Bottom:** too distant from the impacts; **Headwater Diversion:** too distant from the project area; **Island No. 8:** long, narrow, batture land very difficult to manage and little habitat value; **Site 13, St. Johns Bayou Northeast** elevation is too high; **James Bayou:** isolation and elevation are too high.

It is requested that selection of mitigation sites be coordinated with this Department.

Thank you for the opportunity to review and comment.

Sincerely,

JERRY M. CONLEY
DIRECTOR

- c: Commissioner Anita B. Gorman
 Commissioner Howard L. Wood
 Commissioner Stephen C. Bradford
 Commissioner Cynthia Metcalfe
 U.S. Fish and Wildlife Service
 Missouri Department of Natural Resources

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12

12. It will not be possible to maintain connectivity within the basins to elevation 290 and still have a flood control project. However, efforts will be made to acquire mitigation sites that have desirable flooding frequencies to benefit fish.

13

13. Based on recommendations from MDC staff, changes in gate operation were analyzed in detail. The recommended plan, Alternative 3-1B, does allow for flooding within the New Madrid Floodway to elevation 284.4 until May 15. This change in gate operation provides substantial benefits to the fishery. Costs of implementation of additional modifications were determined to exceed expected benefits.

14

14. The Corps will continue to look for opportunities to construct open water habitat at lower elevations in the project area.

15

15. Thank you for your comments regarding site acceptability or non-acceptability. Analysis conducted since publication of the draft RSEIS indicates that a greater amount of lands in the Donaldson Point area would have desirable elevations for fish. The draft stated that only 325 acres of agricultural lands were subject to a two-year flood event; a closer analysis indicates that well over 2,000 acres would be subject to this flooding frequency. The Corps looks forward to working with MDC staff in locating suitable mitigation lands.

STATE OF MISSOURI Bob Holden, Governor • Stephen M. Mahfood, Director
DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE DIRECTOR
P.O. Box 176 Jefferson City, MO 65102-0176

December 12, 2001

Colonel Jack V. Scherer
District Engineer
U.S. Army Corps of Engineers
Memphis District
167 North Main Street, B-202
Memphis, Tennessee 38103-1894

RE: Flood Control, Mississippi River and Tributaries
St. Johns Bayou and New Madrid Floodway, First Phase
New Madrid, Mississippi and Scott Counties, Missouri
Draft Revised Supplemental Environmental Impact Statement

Dear Colonel Scherer:

The Missouri Department of Natural Resources has completed its review of the Draft Revised Supplemental Environmental Impact Statement (RSEIS) that the Memphis District Corps of Engineers published on October 22, 2001 for the proposed St. Johns Bayou / New Madrid Floodway flood control project. The department would like to offer the following comments for the Corps of Engineers' consideration during preparation of a Final RSEIS for this proposed project.

We are very troubled that the RSEIS does not incorporate the previously identified measures proposed by the Corps of Engineers in the September 2000 Final SEIS that were designed to protect Big Oak Tree State Park from the changes in water quantity, chemistry and source that will occur as a result of all of the action alternatives considered in this RSEIS. It must be made very clear in a Final RSEIS for this project that the compensatory measures previously committed to by the Corps for Big Oak Tree State Park must be incorporated into any Recommended Plan that is selected by the Corps, rather than a part of a mitigation package to be developed at a later date. This park, a National Natural Landmark, cannot wait for possible relief at a later date, and this department is absolutely unwilling to accept any delay or additional risk to these most fundamental water compensation needs.

The September 2000 Final SEIS acknowledged this, and included several hydrology restoration measures for Big Oak Tree State Park as part of the Corps' project. These included relief wells to provide an alternate water source, a larger pump than was planned by this department's water restoration project, access to off-park water for sediment sources and a larger system of levees to provide water retention capabilities for the whole park. Acquisition of lands adjacent to the park from willing sellers would also provide support for the Corps' proposed larger water retention berm. Acquisition of ground necessary for constructing the larger park levee proposed by the Corps and acquisition of low ground adjacent to the park that may be susceptible to ponding or prolonged saturation when water is held inside the park should be able to be acquired from willing sellers. The Department of Natural Resources favors such land acquisition from willing sellers.

The RSEIS establishes the significance of Big Oak Tree by portraying it as a unique and significant natural heritage site; a threatened National Natural Landmark; one of Missouri's most threatened natural history features; and, one of the two most significant wooded tracts in the central floodway. The RSEIS also effectively acknowledges the threats to the park that would result from all of the RSEIS action alternatives. However, the Draft RSEIS is not at all clear whether protective measures will be installed at the park, or the circumstances by which the Corps would provide relief wells, pumps or water retention structures. Ambiguous and contradictory statements are made throughout the Draft RSEIS on this matter. As a result, we are left without any clear understanding of exactly what is being proposed, or not

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1. The Corps concurs. The document has been revised accordingly. Please refer to the Corps' letter dated January 29, 2002.

proposed. This department cannot allow one of our most important state parks, a nationally significant natural landmark, to be sacrificed.

As you know, this department has pledged to move forward with Section 401 water quality certification for this project provided that the provisions of the 1994 federal inter-agency Memorandum of Agreement concerning the delineation of wetlands for purposes of Section 404 of the Clean Water Act and Subtitle B of the Food Security Act are followed and that the signatory agencies to this 1994 MOA are in agreement on the necessary mitigation acreage to be accomplished. The St. Johns Bayou / New Madrid Floodway project area wetland delineations and mitigation acreages need to reflect all the rigors and methodologies that would be expected in any standard federal Section 404 action. In addition, ensuring the protection of Big Oak Tree State Park is a fundamental commitment that must be integral to any Recommended Plan that is ultimately selected by the Corps for the St. Johns Bayou / New Madrid Floodway project.

Thank you for your attention to this important matter. The present-day 1000 acre park has survived as a refuge and example of an original 2.1 million acres of forest and wetlands that occurred in Missouri's southeast lowlands in early historic times. We sincerely hope that you will be able to reassure the department that previous commitments made by the Memphis District relative to Big Oak Tree State Park are maintained.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

Stephen Mahfood
Director

SM:tj

c: Governor Bob Holden

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City of East Prairie Enterprise Community

November 26, 2001

Colonel Sherer, US Army Corps of Engineers
Memphis
Attn. Environmental and Economic Analysis Branch (CEMVMPM-B)
167 North Main Street, B-202
Memphis, TN 38103-1894

Re: Support for St. Johns/New Madrid Floodway Flood Control

Dear Colonel Sherer:

Now it is time to make the levee closure happen. It is time that local residents have the protection they need from flooding! I write as a lifelong resident of the East Prairie Enterprise Community, as a community business man, and now as an employee of the City of East Prairie. Once more I offer my very strong endorsement for the flood control project for Mississippi County. Option 1 is the choice which will most effectively protect all of us.

I believe that our local officials have bent over backwards making sure that adverse environmental impacts of this project have been addressed. I am not comfortable with the environmental restoration segment of the final SEIS I am concerned about the vague references made to environmental restoration. Therefore, I am not in support of voluntary buffer strips becoming mandated. Nor do I believe a court authority can condemn land.

Please remove the obstacle and thus make it possible for our community and businesses to grow and prosper. That was the intention of the Enterprise Community Empower Zone concept. It was a good one in 1994 and has stood the test of time.

Sincerely yours,

Lonnie Thurmond
East Prairie Enterprise Community

Lead Coordinating Entity
Susanna Wesley Family Learning Center
P.O. Box 249
East Prairie, MO 63845-0249
Phone 573-649-3731
FAX 573-649-5028 & 573-649-5218
E-mail epec@ldd.net
Martha Ellen Black, Ph.D., Director

Enterprise Community
City of East Prairie
219 N. Washington
East Prairie, MO 63845-1141
Phone 573-649-3057
FAX 573-649-2452
E-mail cofep@ldd.net
Kathie Simpkins, City Administrator

1

1. The Corps, in coordination with various regulatory and resource agencies, developed such measures in order to lessen project impacts to various natural resources, including project area water quality, fisheries, wildlife, and wetlands. The Corps believes the currently proposed mitigation plan as well as the avoid and minimize measures are appropriate for implementation of the recommended plan.

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November 26, 2001

Consolidated Drainage District's Response to the St. Johns - New Madrid Floodway Supplemental Environmental Impact Statement

To all concerned:

The Consolidated Drainage District is charged with the responsibility of creating and maintaining ditches and structures that provide drainage and flood protection to the residents and landowners in our district. The District is composed of much of the land in the New Madrid Floodway. Much of our time and cost is spent repairing ditches that have restrictions from sediment that have accreted during flood situations, along with repairing the erosion and washouts that have also occurred. As these ditches are impeded, they contribute throughout the rest of the growing season to increased chances of temporary flooding due to rainfall. In these situations, the weakened drainage system is less able to handle the demands that it was designed to handle. The backwater in the Floodway causes problems in the district even after the water has receded.

The purpose of the St. Johns - New Madrid Floodway project is to provide flood protection for the Floodway and for the St. John's Basin area. The implementation and completion of this project will have great benefits to those of us who live and work in these areas. The protection from flooding in the floodway should be beneficial to the Consolidated Drainage District in our efforts to maintain our drainage system and, in doing so, provide a greater opportunity for those who live and work there to prosper.

It is the opinion of those of us serving on the Consolidated Drainage District Board of Commissioners that the following options be deployed.

The original closure site (Site 1) should be used. The added benefits compared to the added costs and potential delays are not worth further consideration of other alternatives.

The Start/Stop pumping elevations at the New Madrid Pumping Station should be implemented at the Avoid and Minimize elevations of 282.5 starting and 280.0 ending. The original starting elevation for the pump was 279.5. We feel that there has already been a concession of three feet in elevation, and that benefits compared to the potential costs of starting at the 284.5 elevation are negligible.

The original mitigating acres were approximately 2,500 acres. The collected agencies involved later proposed raising that number to 6,500 acres of mitigated land. The 6,500 acres should be sufficient to implement the plan, as they were originally proposed by the corps of engineers. It should be noted that the number of affected wetland acres in the New Madrid Floodway is 107 acres. It should also be noted that, even after completion and operation of the St. John's Project, these wetland acres will still be wetlands.

The Consolidated Drainage District supports any measures that will benefit the wildlife and the environment as long as these measures do not impede our duty to maintain and provide drainage and flood protection to our constituents

When the costs of implementation of these various options are being considered, have the costs that have been borne by the citizens and businesses of this region been considered? There have been losses in most years since the Corps agreed to close the gap in 1954 until today. Some of these costs can only be measured in human terms. These costs are increasing each year that the project is allowed to languish in argument and study. We urge you to consider the effect that this project has on the people that live and work in the area.

We appreciate the opportunity to input our concerns and opinions, and urge you to implement this long overdue project.

G. Clay Shelby
President
Consolidated Drainage District

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- 1. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 3-1.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.
- 2. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan.
- 3. Please refer to Response #1.

LEVEE DISTRICT NO. 3
Mississippi County

P.O. BOX 397
WYATT, MISSOURI 63882

November 26, 2001

Colonel Jack V. Scherer
District Engineer
U.S. Army Corps of Engineers, Memphis
167 North Main Street B-202
Memphis, TN 38103-1894

Colonel Scherer, Refugees of the St. Johns Bayou-New Madrid Floodway and fellow Hostages.

My name is David Brewer. I'm president of Levee District Number 3 of Mississippi County Missouri. We are gathered here tonight to once again show our support for the St. Johns Bayou-New Madrid Floodway Project. The people that will appear before you tonight are local people and I would be surprised if you hear anyone speak out in opposition to this project.

The point I am attempting to make is, we are being held hostage and this project is being held hostage by outsiders who do not come to these meetings but write letters of position. Many of these letters are written by people representing agencies who are interested in getting all of the mitigation they can grab at taxpayer expense. Fish and Wildlife and Missouri Department of Conservation agreed on 2,500 acres and were one of our greatest supporters of this project. Now they want more because they think they can get it through blackmail.

Our Levee District joins St. Johns Levee District and we fully support their efforts. We feel for the people of this three-county area that this project will benefit and we want to see the studying end and the beginning of construction.

Sincerely,

David B. Brewer
President

The Corps appreciates your interest in the project and thanks you for your letter.

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Reorganized School District No. 2

JACK McINTOSH, SUPERINTENDENT

304 East Walnut Street, East Prairie, Missouri 63845

Telephone: (573) 649-3562

Fax: (573) 649-5455

November 26, 2001

Colonel Sherer
District Engineer
U.S. Army Corps of Engineers, Memphis
Attn: Environmental Branch (CEMVM-PM-E)
167 North Main Street, B-202
Memphis, TN 38103-1894

Colonel Sherer:

I am writing this letter as Superintendent of East Prairie Schools in strong support of the St. Johns Bayou Levee Project.

I see first hand the adverse effect flooding has on our school system. When the water is up it causes our students the problem of not being able to attend school because there is no transportation available. The costs are enormous-it costs not only the student, but the East Prairie School District educational continuity, safety, and monies which are allocated for student attendance.

I urge you to accept Option 1 which provides the greatest level of protection. As a school district I object to the process by which a court authority would condemn land and thus would remove it from the tax base. Please authorize levee closure and begin operation by March 15.

Sincerely,

Jack McIntosh
Superintendent of Schools

JM/cm

The Corps appreciates your interest in the project and thanks you for your letter.

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**STATEMENT OF ST. JOHN LEVEE AND
DRAINAGE DISTRICT
PUBLIC HEARING
NOVEMBER 26, 2001
EAST PRAIRIE, MO**

Colonel Scherer and Memphis District Staff,

For the Record, my name is Lynn Bock and I serve as the attorney for St. John Levee and Drainage District. The District is the local sponsor for the St. John's Bayou/New Madrid Floodway project. The district is governed by a Board of Supervisors, which are elected by landowners-these men are, Bill David LaValle, President of the Board, "Dee" Dill, Vice President, Ferg Hunter, Jr. Secretary, Jonjo Bryant and James H. Bogle.

On behalf of the Board I would like to extend our welcome to you and your staff and also to thank all those in attendance here tonight.

The purpose of this public meeting is to comment on the Second Supplement Environmental Impact Statement for the project. Which leads me to two points that are not comments to the SEIS, but rather related to the fact that we are here again at the comment stage rather than the construction phase. That fact, in and of itself, is a great disappointment to many people who have worked so hard on this project. Every time a mid-level beaurecrat comes up with a question or environmental concern, or even has a really dumb idea about this project, it has to be studied to death. The studies done on this project now fill rooms instead of cabinets. Everything from ring levees to no levees and every thing in between has been thrown in the mix. Although I cannot imagine something else that could possibly be studied, rest assured that those who seek to delay, stall and ultimately kill this project could. They use NEPA as a weapon rather than its intended purpose to assure those impacts that are real are addressed. The time for studying is over, and the time for building has come.

Secondly, before I comment directly on the Second SEIS there is another issue I would like to speak to. There is little doubt that the Corps of Engineers has spent millions of dollars studying environmental impacts to fisheries habitat for rearing and spawning, or shore bird habitat, or other matters including wetlands, waterfowl habitat, mussel beds, hypoxia, terrestrial species habitat, bottom-land hardwoods and just about everything imaginable that deals with the environment. With all of the environmental studies and rhetoric sometimes we lose focus that this project is ultimately about people. Improving the quality of life for the citizens of some of the most impoverished areas in the State of Missouri. It is about jobs and economic hardship. It is about people being forced from their homes by floodwaters. It is about children going to school with the stench of sewer gas in the hallways. The greatest impact this project can have is to remove the barriers and problems that we have lived with for over a century. The SEIS does not address these issues, and it is not meant to focus on them either, but we cannot lose sight of what this is all about and why we are engaged in this exercise. So as I go through the minutia of the document, please do not mistake these as our sole concern, rather that will remain the people that this project will help.

That having been said, let me now turn to the Second supplemental EIS. The original scope of this document was to be studying alternative levee closure locations and identification of mitigation lands. Several elements were added to the scope by the Corps after receiving additional requests by the resource agencies. Again, there is no limit to the study requests, and these additional elements to the document serve to muddy the waters from our perspective rather than offer any real and viable alternatives.

First are the levee closure alternatives. As you are aware, the original closure location at the 1500-foot gap at the base of the floodway was authorized by congress in 1954. At our initial meeting with the resource agencies on the 2nd Supplemental EIS I believe we made it clear both to the Corps and the agencies that any alternative that is outside the scope of that authorization was not viable. Said another way, anything that required a new authorization from Congress was not on the table. [However, the Corps went ahead with the analysis of the alternative levee closure locations, even outside the scope of the authorization. That analysis clearly shows that Alternatives 3, 4 and 5 are not economically viable since they bring the benefit to cost ratio far below the required level for project funding of 1:1. Only alternatives 1 and 2 have adequate benefit to cost ratios and meet the critical element of within the authorized authority, and of those two alternatives 1, the original meets the National Economic Development Plan guidelines as being the biggest

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1

1. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 3-1.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.

the original, meets the National Economic Development Plan guidelines as being the biggest bang for the federal dollars spent.] We see no reason, economically or environmentally to deviate from the NED plan. Alternative 2 offers a very few environmental benefits, and we submit that those benefits can be gained elsewhere without impacting the total project benefits.

The second original area of study for this document was identification of mitigation lands. As we mentioned in our comment to the first Supplemental EIS, we believe the mitigation package far exceeds what is required and the Corps has embarked on a dangerous precedent by giving way too much in the way of mitigation lands, even the waterways experiment station fisheries calculations do not justify the huge acreage being offered. The Corps has jumped the total acreage from roughly 2500 acres to 9500 acres, and that is with a scaled down project. With that type of mentality, we could give the resource agencies 20,000 acres for just thinking about building the project. Shame on us.

Additionally, the concept of identification of mitigation lands is somewhat askew, since the mitigation lands were originally identified in the original EIS as being adjacent to the 10 Mile Pond Wildlife Management Area. However, in the spirit of giving the EPA and the U.S. Fish and Wildlife Service whatever in the heck they want, 15 areas in addition to 10 Mile Pond were identified as potential mitigation sites.

While I am on that subject, it is amazing to many of us who have worked with this project that the resource agencies refuse to recognize, or at least discount the potential benefits that could be derived from the mitigation for this project. Not only in terms of what it will mean to the wildlife, but also to the people of the area. The recreational benefits are pretty obvious, but there are also the added economic benefits from tourism dollars and educational opportunities that will spring from these public lands. Another aspect that the raw data in the document does not immediately disclose.

Now, let me turn to the elements in the document that went beyond what we believed was the intended scope of the supplement. Based upon a request by the Missouri Department of Conservation the Corps, without local input, revisited the start pump and stop pump operational plan. As you should recall, the original plan was to start the pump on the floodway side at elevation 278 feet and stop the pump at 275 feet. During the formulation of the 1st supplement and the adoption of the Avoid and Minimize plan, the Board agreed to allow water to impound to 282.5 feet and stop the pump at 280 feet through the 1st of March, increasing the wildlife benefits.

This document contains two additional plans, both that completely change the nature of how this project is operated. First, is the suggestion that rather than impound water, that the gates just stay open, which is a complete reversal of the mitigation idea behind the plan. Secondly, there is a change in elevation from the 282.5 to 284.4 feet maximum elevation and stopping the pumps at 283 feet, which is more water than the original maximum under the avoid and minimize plan. To top that off there is a suggested plan that every three years we let the river move up the floodway to elevation 288 and stop the pumps at 287. Such a plan would flood over 8,000 acres. We thought this was a flood control project, not a flooding project. The loss of economic benefits, not to mention the return to a mono-cropping agricultural system that this would cause far outweighs any benefit that the fish would gain from frolicking in the soybean stubble. And 8,000 acres of flooding may not be the whole story. Letting water get to that level causes other dangers too. A significant rain event, which happens, just ask the people in Iowa in 1993, would increase the chances of damages in the floodway. And just one inch of run off from a rain takes 3.3 days to pump off. Even a less than significant rain event will increase the water elevation enough to create all kinds of havoc. And that 3.3 days of pumping also goes for the lower elevation of 284.4 feet, which also increases the flooded acres for several days after a rain. This plan is beyond ill-conceived. The potential cost in losses is simply too great to consider anything but the avoid and minimize plan which we agreed to in the 1st supplement.

Unfortunately, that is not the only issue in the operational plan. The plan suggests that in addition to the added water levels that we should suffer the possibility of having this potential flood through May 15 every year. That is 76 days beyond the avoid and minimize plan of March 1 in the 1st Supplement. It should not be any mystery how we got to March 1 as a cut-off. In order to maximize the economic benefits you give agriculture its best chance. March 1 through May 15 is already normally a wet season, so you need to get the ponded water off in order to get the best possible drying. Then you try to get a crop in by May 1 at the latest. With the possibility of 3.3 days to pump off an inch of runoff, the possibility of a wet spring and all of the other variables that fit into the mix of agriculture any ponding after April 15 is not acceptable. To do so will erode the district's ability to operate

2

- 2. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan.

3

- 3. The Corps, in coordination with various regulatory and resource agencies, developed such measures in order to lessen project impacts to various natural resources, including project area water quality, fisheries, wildlife, and wetlands. The Corps believes the currently proposed mitigation plan as well as the avoid and minimize measures are appropriate for implementation of the recommended plan.

and maintain the project by continuing to keep our landowners in a soybeans only farming situation. Under any plan, any lands in the floodway that are subject to flooding on a seasonal basis should be purchased as mitigation lands if the landowners are willing sellers. In that way the resource can be managed to its highest potential.

Finally, I would like to make a few comments about Appendix L and the Additional Avoid and Minimize Features contained in Section 12.0. While we as the local sponsor do favor certain possible features that could be incorporated into an environmental restoration project, at this time we feel that the proposal has not been fleshed out enough to support it. Management of borrow areas and fish weirs are distinct possibilities for further study, but we rather doubt that large buffers of timber along ditches are feasible in light of the potential maintenance problems. There is always room for improvement and the district is not adverse to suggestions, but they need to be thoroughly and completely discussed and developed. Since environmental restoration is separate from the mitigation and not an authorized element of the project we fully expect that discussion to continue over the years, but while the project moves forward on its current schedule.

In closing, I want to briefly make some comments to this projects detractors. Quit lying about wetlands and connectivity. The impacted wetlands in this project would comprise about 1% of the wetlands in the lower Mississippi Valley. And as for connectivity, look only as far as the Diversion Channel just south of Cape Girardeau, or just across the river to the Hickman Bottoms and the several tributaries that the river backs into. And the list goes on and on. While we worry about people and improving their lot in life, you worry about increasing memberships to pay your salaries. We do have the higher ground, and we will prevail.

Delouri Farms, Inc.
114 South Silver Springs Road • Suite 201
Cape Girardeau, MO 63703
Telephone & Fax (573) 334-4848

December 9, 2001

Colonel Jack Scherer
Memphis District Engineer
U.S. Army Corps of Engineers
B-202 Clifford Davis Federal Building
Memphis, TN

Dear Colonel Scherer:

I join the many residents of Mississippi County testifying for the closure of the St. Johns Bayou-New Madrid Floodway levee gap at the original 1,500-foot gap location. As various studies confirm, this location has the greatest-cost benefit ratio and is the one with least impact on wetlands.

You undoubtedly are aware of previous agreements and attempts to reach an accord on this project. While an earlier agreement with environmental and government agencies called for only 2,500 acres of mitigation with further studies and agreements providing for 6,500 acres and still later 9,500 acres, now it appears Fish and Wildlife Service wants 12,000 acres.

There appears to be no end to the demands for revised agreements. Three generations of my family have worked in various efforts to effect the levee closure. It is time to end the endless revisions of agreements and get the levee closed and pumping station installed. The flood-prone residents of East Prairie and Pinhook deserve and need protection, agricultural interests need protection during the farming season and wildlife needs the enhanced environment the present plan provides.

There may not be many flood control projects that provide a win-win solution. This is one of them and it is time to stop backfilling and do the levee closure.

Cordially,

E.D. White, Jr.
Chairman of the Board

1

1. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 3-1.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.

2

2. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan.

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ENDANGERED SPECIES COALITION

December 17, 2001

Colonel Jack V. Scherer, District Engineer
Memphis District, U.S. Army Corps of Engineers
167 North Main, Room B202
Memphis, TN 38103-1894

Re: Revised Supplemental Environmental Impact Statement for the Saint Johns Basin/New Madrid Floodway Project

Dear Colonel Scherer,

These comments are submitted on behalf of the Endangered Species Coalition, a national organization representing over 440 groups dedicated to strong imperiled species and habitat protections. Given the size and scope of this project, we are formally requesting a 30-60 day extension on submitting comments on this project.

LEAST TERNS

There was discussion of the negative effects on the endangered least tern in the Environmental Defense Fund's comments dated June 24, 1999. The discussion was detailed in a report by Dr. Katie Dugger, PhD, University of Missouri, who is the primary scientist to have conducted extensive studies of the use of the lower Mississippi River by least terns (Appendix A, EDF comments). According to Dr. Dugger, the Missouri section of the lower Mississippi provides roughly one fourth of the breeding habitat for this endangered bird. She concluded that the negative impacts of this project would be significant. She further stated that the project area contains three features critical to nesting success including: 1) the area is adjacent to rare sandbar habitat in which least terns use for nesting; 2) the area has large populations of small fish; 3) the area drains through two tributaries that discharge in roughly the same area. The result of these features is that nesting least terns have access to a dense population of small, juvenile fish in a confined area near their nests, which is the condition that allow terns to develop energy reserves necessary for successful nesting. This protects the terns from having to fly to other foraging locations leaving their nests vulnerable to predation and depleting the terns of the energy reserves necessary for successful nesting. Dr. Dugger has personally observed heavy tern use and large populations of small, juvenile fish in this area. The Army Corps of Engineers, under the Endangered Species Act, is mandated to protect and recover all listed species.

- 1 1. Refer to Webster Groves Nature Study Society (WGNS) Response #7.

PALLID STURGEON AND FISHERIES

The endangered pallid sturgeon needs shallow backwater areas for spawning, which this area currently provides, so this area is critical to the recovery of the pallid sturgeon. Dr. Robert Sheehan PhD, Southern Illinois University is a nationally recognized expert on the fisheries of large rivers, wetlands, and of the Mississippi River in particular (his report was included in EDF's June, '99 comments, Appendix I). Dr. Sheehan pointed out in his report that the EIS concedes that the project will eliminate 97% of "spawning and rearing habitat for fish" in the New Madrid Floodway and roughly 50% of the fish habitat in the St. Johns Bayou. Furthermore, the U.S. Fish and Wildlife Service has stated that 80-90% of all fish in the lower Mississippi River spend the winter resting in these areas. Eliminating these spawning areas will also significantly diminish the genetic diversity of the white bass, a prized game fish.

- 2 2. No pallid sturgeon were captured in the project area during recent fishery surveys by Sheehan *et al* (1998), and based on published and ongoing life history studies, the New Madrid Floodway does not provide reproductive habitat for this species. The spawning season is believed to be during spring, initiation dependent upon latitude and timing of proximate cues like spring runoff. It is presumed to take place during high water when sturgeon move upstream to spawning areas. Pallid sturgeon spawn adhesive eggs over hard or stable substrates in flowing water.
- A recent report by Boyd Kynard (Conte Anadromous Fish Research Center, University of Massachusetts) suggests that after hatching, larvae drift downstream for long periods of time, and if deposited in reservoirs, cannot reach suitable rearing habitat. Bob Hrabik with the Missouri Dept. of Conservation recently reported capture of larval pallid sturgeon in the Mississippi River. Larvae were captured in slow-moving (water velocity ranging from 0.08 - 0.65 m/s), depositional areas near rock or cobble substrates. These are the first documented larval pallid sturgeon collected, and the capture locations indicate that these fish rear in the river-proper. Therefore, it is unlikely that larval pallid sturgeon would intentionally move from the river, up an outlet channel,

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CONCLUSION

In conclusion, the St. Johns Bayou and New Madrid Floodway are critical to both the survival and recovery of Endangered and Threatened species and the greater fish and wildlife needs of the lower Mississippi River. To drain this area for the benefit of a few tax-subsidized grain farmers is utterly ridiculous. Please give the public an extra 30-60 days to revise and extend their on this project. The Endangered Species Coalition opposes the proposed action and urges the Army Corps of Engineers to cancel the project.

Sincerely,

Charles Phillips
 Organizer, Central States Region
 Endangered Species Coalition
 1027 East Walnut Street
 Columbia, MO 65201
 573-442-0726
 email: cphillips@stopextinction.org

and into a backwater such as the New Madrid Floodway.

W.M. Gardner (Montana endangered fishes program, Pallid sturgeon annual report, Montana Fish Wildlife and Parks, Fed. Endangered Species Sec. 6, SE-7-5, Helena, 9 pp.) monitored movements and habitat use of hatchery-reared pallid sturgeon and reported that yearling pallid sturgeon used relatively deep channel areas (average = 2.0 m) near the channel thalweg, which is similar to where adults reside. The Waterways Experiment Station also collected yearling pallid sturgeon with trawls in the lower Mississippi River. These fish were found 100-300 feet from shore in 20-30 feet of water. These results, along with Sheehan's finding of no pallid sturgeons in the floodway, support the Corps opinion that the New Madrid Floodway is not suitable pallid sturgeon spawning or rearing habitat.

Concerning white bass spawning, please consider the modified gate operations that allow for the Mississippi River to back onto the floodway to an elevation of 284.4 feet NGVD or higher in every third year to 288 feet NGVD through May 15. These modified gate operations were considered specifically to reduce impact on the fishery. By May 15, the white bass spawning season is complete. The mitigation plan calls for the reforestation of up to 9,557 acres of cleared land at lower elevations in the project area. White bass are widely distributed in the Mississippi River Basin, are commonly collected in most fishery surveys, and currently inhabit the St. Johns Bayou Basin. In addition, white bass have been introduced outside their range and have been hybridized with striped bass. There is no indication that the white bass are imperiled. In fact, the "prized gamefish" seems to be extremely plentiful. Although the Corps recognizes that white bass make spawning runs into the New Madrid Floodway, this backwater does not provide the preferred spawning habitat for white bass. However, white bass can apparently spawn in a variety of habitats with adequate hydraulic circulation to aerate the developing eggs, including batture lands and backwater areas available to the river through gated structures (like the St. Johns Bayou).

3

3. Refer to DOI/USFWS Responses #2, #7, and #8, WGNSS Response #7, as well as ESC Response #2.

ENVIRONMENTAL DEFENSE

finding the ways that work

January 2, 2002

BY FAX AND OVERNIGHT MAIL

Mr. Shawn Phillips
Memphis District, U.S. Army Corps of Engineers
ATTN: CEMVM-PM-E
167 North Main Street B-202
Memphis, TN 38103-1894

Re: Comments on St. Johns Bayou/New Madrid Floodway - Project

Dear Mr. Phillips,

Enclosed please find comments on-behalf of Environmental Defense and several other conservation organizations regarding the above-referenced project. Attached are several supporting documents itemized in the comments. I am faxing you a copy of this letter, the comments themselves, and the reports of Dr. Stinson and Dr. Sheehan. By overnight mail, I am including all these documents and the supporting documents as well.

Thank you for the opportunity to comment on these documents and for the extension you earlier granted until today.

Sincerely,

Timothy D. Searchinger
Senior Attorney

**ENVIRONMENTAL DEFENSE, AMERICAN RIVERS
NATIONAL WILDLIFE FEDERATION,
MISSISSIPPI RIVER BASIN ALLIANCE,
MISSOURI COALITION FOR THE ENVIRONMENT
THE SIERRA CLUB**

COMMENTS ON THE REVISED SUPPLEMENTAL ENVIRONMENTAL
IMPACT STATEMENT FOR THE ST. JOHNS BASIN-NEW MADRID
FLOODWAY PROJECT (OCTOBER 2001).

January 2, 2002

Prepared by Tim Searchinger, Senior Attorney, Environmental Defense

Environmental Defense, American Rivers, the National Wildlife Federation the Mississippi River Basin Alliance, the Missouri Coalition for the Environment and the Sierra Club appreciate the opportunity to present these comments on the draft Revised Supplemental Environmental Impact Statement for the St. Johns Basin-New Madrid Floodway Project (October 2001).

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The revised draft follows release of an original draft supplemental EIS in 1999 and a final proposed EIS in 2000. Environmental Defense and other conservation organizations submitted extensive comments on each of these documents dated June 24, 1999 and October 10, 2000. Included with these comments were extensive expert reports and supplemental documents. Except for the minor revisions to these comments as explained below, we continue to consider them valid comments for the new draft revised supplemental EIS. We therefore reaffirm these comments and incorporate them by reference as comments on the new draft. In these comments, we reiterate some of the critical elements of the earlier comments and offer some additional information and views. Included in these comments are the following:

- A new report by Dr. Bob Sheehan
- A new report by Dr. Tom Stinson
- Comments by Dr. Leonard Shabman for the U.S. Environmental Protection Agency on the Yazoo Pump, a report by Dr. Shabman regarding the economic analysis of that project and the economics of non-structural alternatives, and an evaluation of that report and of the economic analysis of the U.S. Army Corps of Engineers for that project by economists at the U.S. Department of Agriculture.
- Two chapters from a 2001 report of the National Academy of Sciences regarding wetland mitigation
- Excerpts from the draft EIS by the Corps of the Yazoo Pump project
- The Action Plan for Reducing, Mitigation, and Controlling Hypoxia in the Northern Gulf of Mexico by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force (January 2001) along with a letter to EPA Administrator Christine Todd Whitman from Mississippi River basin state governors.
- A WES publication entitled *Dredging Technology: Equipment Operations and Management*.

As we have earlier stated, the proposed project would cause significant adverse affects on aquatic resources and the environment in general, and the EIS is flawed because, despite presenting some of these impacts, it represents that overall the project will have no such adverse impacts. The project site provides the last remaining remnant of connected backwater on the lower Mississippi River, which has lost 95% of its once staggering floodplain. The backwater includes a valuable mosaic of habitats including floodplain forests and cleared areas, backwater lakes occasionally connected to the river, and an interconnected stream and ditch network that allows fish easy access and regress and concentrates fish resources as they enter the Mississippi River.

Today, up to 84,000 acres flood occasionally, including more than 50,000 acres every three years, but the project would eliminate direct fish access through the floodplain of the New Madrid floodway and reduce this flooding by tens of thousands of acres. The project would eliminate valuable fishery resources, particularly the habitat for the species of greatest concern, harshly impact a rare, productive and diverse mussel area, eliminate temporary ponds of great value to reptiles and amphibians, and eliminate most of the area's benefits for waterfowl and shorebirds. The project would also likely increase the flow of nitrogen into the Mississippi River, contributing meaningfully to the large cumulative problem of the dead zone in the Gulf of Mexico. It has the potential to release pesticides in significant levels in a manner virtually not addressed by the EIS.

In addition, the project makes no sense at a time of huge crop surpluses in the United States and because it fails to address the key flooding problems of the Town of east Prairie. The project does not pass an honest benefit/cost analysis, both because half of the project

1 1. Noted.

2 2. Please refer to DOI/USFWS Responses #2 and #7.

3 3. The frequently flooded acres that will be affected by this project, i.e., those areas flooded during a 2-year flood event, total 27,372 acres (see Table S-1).

Direct fish access into the New Madrid Floodway is still allowed with the project during spawning and rearing times under the modified gate operations included in Alternatives 3-1b, 3-1c, 3-2b, 3-2c, 3-3b, and 3-3c. During low water years when water normally would not back onto the floodway, the recommended plan, Alternative 3-1.B, provides a protected rearing habitat that would otherwise be unavailable. Locals note that this limited river access is what has existed in the St. Johns Bayou Basin for years and they note fish species (shad, white bass, buffalo, etc.) migrating through the gravity outlet into the basin under current conditions (St. Johns Bayou and New Madrid Floodway April 11, 2001 Interagency Meeting Minutes). Also, please refer to DOI/USFWS Responses #2, #7, and #18.

4 4. The project addresses flooding in East Prairie. A suitable outlet to convey floodwater around and away from the city are necessary, regardless of interior drainage problems. Refer to DOI/USFWS Responses #87 and #96 regarding project economics/benefits

uses an artificially low interest rate and because of other flaws, including an improper projection of huge increases in net returns for agriculture in the area.

The analysis does not properly analyze nonstructural or other less environmentally damaging alternatives, and would drain thousands of acres of wetlands in violation of the Clean Water Act and the Food Security Act of 1985 ("Swampbuster").

I. Economics

Included in these comments is an additional report of Dr. Tom Stinson of the University of Minnesota and the state economist for Minnesota. Dr. Stinson points out that roughly 90% of the projected benefits for the project alternative 2 and the various alternatives under 3 are agricultural benefits. However, there are numerous flaws in this analysis. The New Madrid Floodway levee closure, whose benefit/cost ratio is now estimated at only 1.1 to 1. is analyzed using an interest rate of only 2.5%. This interest rate artificially depresses the estimated cost of the project by almost two thirds. With the interest rate used for the remainder of the project, the costs would greatly exceed benefits.

Another major problem identified by Dr. Stinson is that the estimates of agricultural benefits are based on an assumption that new technology will generate vastly increased crop yields (both with and without the project) while prices and the costs of inputs remain the same. In effect, the analysis presumes that all agriculture will become vastly more profitable, so that drainage improvements are worth far more in the future than they are today. However, history shows that while yields are likely to continue to increase, at the same time prices will decline (in inflation-adjusted terms) and input costs will rise. This is true because of basic economic experience that as farmers everywhere produce more crops on the same land, prices fall. This assumption, which both the U.S. Department of Agriculture and the Environmental Protection Agency have indicated is false, greatly inflates the projected benefits of the project. Correctly analyzed, the project almost certainly does not have benefits that exceed costs.

Dr. Stinson also points out that the results are inherently implausible and that the Corps should conduct an analysis of differential prices of land values in the area to check on the overall plausibility. Among the other problems, the economic analysis uses out-of-date crop prices, and even using normalized prices, prices should be updated to reflect prices through 2001.

In addition, the presentation of the economic analysis is not adequate because it does not present meaningful cost data. It is therefore impossible to determine the reasonableness of cost estimates. There is, for example, no estimate of initiation costs presented or breakdown of such costs. Indeed, because there is no actual mitigation plan presented, it is not possible to estimate the costs of mitigation meaningfully in any event. Before finalizing the EIS, the Corps should present a new draft with project costs meaningfully itemized to allow comment on these estimates and with a final mitigation plan capable of having cost estimates. That is particularly necessary because the projected benefit/cost ratio is so low that any meaningful increase in costs would cause the project to fail.

Dr. Stinson also points out that most of the potential mitigation sites identified are in the project area. These sites are frequently flooded croplands. If these sites are chosen, then the same lands will not provide economic benefits for the project, and so they cannot be included in the benefit/cost analysis.

Responses #87 and #96 regarding project economics/benefits.

5. Refer to DOI/USFWS Responses #2, #14, and #39, and EPA Response #19.

6. The closure was authorized as part of the Flood Control Act of 1954. As such, it has an authorized interest rate of 2.5%. Because of this, it is appropriate with respect to current Corps' guidance to optimize or size the closure based on its authorized rate of 2.5%. All closure alternative locations are compared based on 2.5% in order to identify the optimum location from an economic standpoint. Refer also to DOI/USFWS Response #96.

7. Corps guidance requires that benefits and costs for proposed projects be analyzed based on constant price levels. The analysis includes estimates of future crop yields. However, these estimates are not based on inflated price levels. Instead they are real increases per acre based on historical trends. The study also includes an analysis of the increased inputs and production items required to achieve these future yield increases. Because both yields and production inputs are increased based on real terms (constant price levels) the analysis cannot be viewed as overstating the benefits of the project.

8. As stated in EDF Response #7, current Corps guidance requires using constant price levels for all cost items, including land. Price levels presented in the study are not current. These price levels were used for formulation and sizing purposes. After selection of a recommended plan, the benefits and costs of the selected plan will be presented based on current price levels in the Final RSEIS. Refer also to DOI/USFWS Response #96.

Normalized prices used in the study were developed by the Economic Research Service (ERS) as required by the Water Resources Planning Act of 1965. Refer to DOI/USFWS Response #87.

9. The document provides mitigation acreage impact, total cost, and cost to benefit ratio for each alternative. The reduced mitigation needs for different New Madrid Floodway closure alternatives is presented in Section 6.2 of the RSEIS and range from 8,243 acres for Alternative 3-1.A to 4,737 acres for Alternative 3-3.C. The mitigation required for St. Johns Bayou Basin improvements is approximately 1,312 acres for each alternative (see Appendix L, Section 9.1). The total first costs are presented in Table 2-1 for the Phase 1 Project features and Mississippi Rivers and Levee feature (the closure levee and box culvert for the New Madrid Floodway). Additionally, first costs for the MRL portion only are presented in Appendix B, Table 19. Relative changes in the cost to benefit ratios are presented in Table 2-1 for alternatives considered in detail, as well as in Appendix B Tables 19, 20, 21, 22, 23, 24, 25, and 26 for all alternatives. Refer to DOI/USFWS Response #96.

10. You are correct that the Corps should not claim a benefit on such lands, if they have been identified. However, the location of final sites, whether within or outside the protected area, has not been identified at this time. For areas above the closure, the prime mitigation sites are those that receive significant residual flooding after the project is in place. Because these areas are still subject to frequent inundation, they receive little benefit from the project and have the highest likelihood to be acquired from willing sellers. Since they receive little benefit, their acquisition will have minimal effect on the project's benefit to cost ratio.

Perhaps most fundamentally, Dr. Stinson observes that crops production to be enhanced by the project involves crops that are still in large surplus. He also notes that agricultural policies continue to favor removing more lands from crop production to ameliorate these surpluses. In light of this policy, it makes no sense to invest millions of dollars in generating further crop surpluses. We believe the project therefore does not meet the public interest test of the Rivers and Harbors Act. Moreover, the focus on NED benefits is an example of how the Corps is improperly treating policy guidance as binding rule.

II. Project Alternatives

For reasons presented in the earlier comments and in the affidavits of David Conrad and Dr. Stinson, we believe the revised EIS continues improperly to analyze reasonable project alternatives that would better serve the needs of the community and avoid adverse environmental affects. The analysis rejects an alternative to relieve flooding in East Prairie in part on grounds that it does not pass benefit/cost analysis. This claim is inconsistent with prior statements in previous documents without explanation.

In addition, the Corps is treating guidance in this manner as binding rules improperly, and the failure to analyze project alternatives for their economic development benefits for East Prairie is inappropriate for a project whose special cost-sharing status is predicated on these benefits. The Corps also fails to analyze the health implications of regular flooding in East Prairie that will not be addressed.

The Corps also rejects an alternative focused on a levee along St. James Ditch and interior drainage projects on the grounds that it would not deal with access problems from flooding that leave East Prairie an island. However, nowhere else in the EIS are these access problems described and Corps maps show that the flooding redressed by the project does not circle East Prairie or preclude access to the west and north. The failure to discuss specific access points flooded or other specific roadways flooded is critical because it also means the Corps does not analyze any alternatives, such as raising roadways or improving culverts, to address these problems. And without information about the specific flood roadway problems in the community, it is not possible for others to examine the economic viability of alternatives.

The Corps also rejects alternatives that focus on alternative land uses. As Environmental Defense earlier commented, the analysis of these alternatives is unreasonable because the Corps only analyses alternative uses (such as reforestation) of the flooded areas that would cover all 52,000 acres flooded in a three-year flood. Reasonable alternatives may involve reforestation only the most flooded areas, including those flooded on average once every two years, or even those flooded only on average every year. By addressing these areas of greatest flood damage, a significant portion of project benefits might be achieved.

In addition, the analysis of these alternative land use alternatives is wholly inadequate because the Corps only examines potential private forestry benefits. It does not examine any potential public benefits, such as water quality improvement, carbon sequestration. Nor does it analyze potential hunting benefits. Dr. Stinson discusses this inadequacy, and it is wholly inconsistent with Corps analysis of the Yazoo pump and the non-structural analysis of Dr. Leonard Shabman for that pump which was largely endorsed by economists of the U.S. Department of Agriculture.

These inadequate analyses of non-structural alternatives and alternatives focused on providing benefits for East Prairie, alone, with the failure to present meaningful information about road access, compel a new draft EIS that analyze these issues more thoroughly and permit meaningful comment.

III. Wetland Analysis

The new analysis reduces areas of projected wetland impacts roughly in half. The chances in the analysis are never explained, so it is impossible to evaluate their

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11. Most Federal programs to reduce surplus crops are aimed at retiring marginal lands from production, and the area's farmlands are far from marginal. Implementing the recommended plan will enhance their productivity. The resulting increase in project area production will have no effect on U.S. market conditions as a whole. USDA's estimates for 2001 predict production of 9.51 billion bushels of corn, 2.89 billion bushels of soybeans, and 1.96 billion bushels of wheat. Refer also to DOI/USFWS Responses #3, #4, and #5.

12

12. There is no inconsistency with the September 2000 document with regard to Alternative #4. Refer also to DOI/USFWS Responses #3, #4, and #5.

13

13. NED benefits presented in the report are economic development benefits that accrue to the nation as a whole. These benefits not only help the local economy, but also enhance the efficiency of the national economy. There would be no Federal interest or Federal participation in a project that only contributes to the local economy and that does not contribute to the national economy as well. Regarding special cost-sharing status, the Corps is not aware of any special relief from or revisions to its guidance on Federal participation in water resource development projects.

14

14. The RSEIS investigated ring levee alternatives for East Prairie. These alternatives were rejected primarily because they were not economically justified. All ring levee alternatives had benefit-to-cost ratios of less than 0.5:1. Ring levees also failed to address East Prairie access issues. Raising access roads into and out of town would provide no flood protection to the areas of town and outlying areas that experience periodic flooding.

15

15. Alternative land uses were not economically justified. Reforestation was considered because it was the most promising alternative land use. Other alternative uses, including parks, idle grassland, residential, municipal, or industrial were not considered because they were not economically viable or there was no demand for such use. We initially looked at the 3-year flood zone for reforestation because economic analysis was based largely on this event. As a result of your comment we have reanalyzed reforestation for the one and two-year flood zone. Again, the analysis determined these measures to not be economically feasible.

16

16. The value of hunting opportunities is reflected in the price that hunters are willing to pay for hunting lands in the project area. As reflected in the land valuation analysis in the study, the value of hunting land is much lower than cropland. This suggests that the area's lands are currently utilized for their highest and best use. Refer to DOI/USFWS Response #60 regarding carbon sequestration.

17

17. The 2000 SEIS established a baseline for wetlands in the New Madrid Floodway and the St. Johns Bayou Basin that included many acres of wetlands not normally affected by backwater (therefore

appropriateness. More basically, the new analysis still does not perform a true wetland delineation of project areas, only guestimates using river gauge levels. Moreover, while the wetland analysis claims that river groundwater seepage will maintain the wetland status of all forested wetland areas, it fails to examine the impacts of this seepage in deciding which areas are wetlands in the first place.

By law, the Corps must follow the Clean Water Act in the same manner as any other party. Part of that is the preparation of a complete wetland delineation. The failure to perform such an analysis is illegal.

The 404(b)(1) analysis is also highly Inadequate, particularly in its ultimate arbitrary judgment that impacts on aquatic resources will not be adverse. These findings, presented in conclusory manner, are inconsistent with much of the information elsewhere presented in the document. Among other problems, the overall focus of the EIS assumes that all impacts on fish or waterfowl or shorebirds can be generalized into one generic impact on average fisheries. Such an analysis improperly ignores the harsh impacts on particular species, such as white bass, and it wholly ignores impacts on amphibians and reptiles, and essentially brushes aside impacts on mussels. While it may be appropriate in some circumstances to make reasoned trade-offs among species, there is no effort to do so in the EIS. Nor could such a case be made in this case since the species adversely impacted are precisely the species of greatest conservation concern from the project precisely because the project site provides one of the last remaining backwater floodplain areas with access to the river.

IV. Fishery & Mussel Impacts

Dr. Bob Sheehan has updated his report on the fishery impacts and renews his expert judgment that the project would have significant adverse impacts on fish and mussels. Indeed, the EIS presents many of these impacts and then arbitrarily asserts that overall project impacts are not adverse. For example, it claims that mussel impacts will not be adverse because stream flow hydraulics will not change, but this judgment ignores the impacts of other judgments.

As Dr. Sheehan explains, the analysis ignores the fundamental problem that the project will cut off normal stream access from the Mississippi River to the New Madrid floodway. It is the mosaic of habitats and never access that provide the key benefits of the site.

Dr. Sheehan also points out that while the project analysis only examines areas flooded to a depth of greater than one foot, his data gathered for the Corps of Engineers for another project shows that juvenile fish actually prefer areas with lower water depths. This means that the Corps analysis needs to account for (and mitigate for) tens of thousands of additional acres. Some of this data is already in the possession of the Corps's St. Louis District, and we ask that this data be incorporated into the record. We would be happy to provide it directly to the Memphis District.

Dr. Sheehan also points out that the analysis arbitrarily excludes habitats flooded in winter or late spring, and habitats flooded less often than once every two years. That exclusion is based on no proper scientific basis and violates common sense. It is also

not actually impacted by the project). The 2000 report also, erroneously, counted prior converted cropland as wetland. The new document has been revised appropriately. Also, please see DOI/USFWS Response #2.

18

18. Performing complete wetlands delineation is not a statutory requirement of the National Environmental Policy Act. Rather, impacts to wetlands must be defined and discussed, as well as measures to avoid or minimize impacts. The Corps has evaluated potential impacts to wetlands and has made application for water quality certification as required by the Clean Water Act.

19

19. Refer to DOI/USFWS Responses #2, #22, #27, #34, #68, #77, #78, #79, and #81.

20

20. Concerning mussels, St. Johns Bayou Basin appears to provide a more valuable habitat based upon sampling data. Thirteen species found in St. Johns Bayou were not found in the New Madrid Floodway. Only one species was found in the floodway outside St. Johns Bayou. The St. Johns Bayou is already cut off from backwater from the Mississippi River due to the gravity outlet structure. The impact of channel work in the St. Johns Bayou is accounted for and subsequent avoidance steps are proposed. These steps include work from one bank side and avoiding a nine-foot strip of habitat. And mussels will be relocated prior to construction. The ability to evaluate water from St. Johns faster with a pumping station will not adversely impacts the mussels. The proposed ten-year monitoring plan will allow for additional steps to be taken after project construction to aid the recovery of any impacted populations. The RSEIS is fully adequate in its discussions and plans for mussels.

21

21. The statement that the analysis looks at only water deeper than one foot is incorrect. The fishery mid-season rearing impacts were assessed in the RSEIS. This was done in agreement with the USFWS because it provided the greatest estimate of impacts that the project would have (See Appendix L, page 11). All flooded acres are considered under the rearing scenario, regardless of depth or duration (i.e., if it had an inch of water on it, it is considered valuable habitat for the purpose of analysis).

A significant amount of text changes have been implemented in Section 4.6 of the final REIS. See also DOI/USFWS Responses #7 and #8 for an accurate depiction of the fishery in the project area.

The statement that Dr. Sheehan's data shows that juvenile fish actually prefer areas with lower water depths is not supported by the data or sampling strategy of the 1998 study. While Dr. Sheehan observed fishes in the shallows, there is no quantitative data to support the types of fishes observed. The sampling approach did not specifically target areas of less than one foot of depth; therefore the sampling does not prove conclusively that rearing fish prefer those areas.

22

22. Refer to DOI/USFWS Responses #68 and #81. The interagency HEP team, including the Fish and Wildlife Service, decided upon the analysis of the rearing mid-season impacts. This period

inconsistent with Corps efforts elsewhere to claim environmental benefits associated with flooding less frequently.

In general, Dr. Sheehan explains that the potential mitigation sites analyzed could not mitigate the fish impacts.

V. Cumulative Analysis

The EIS now contains a generalized discussion of cumulative impacts. However, this analysis is completely inadequate and is inconsistent with guidelines on how to analyze cumulative impacts prepared by the Council on Environmental Quality and previously submitted for the record. Each of the adverse environmental impacts has to be evaluated in light of its contribution to the cumulative adverse impacts of past and reasonably foreseeable future actions. But that is almost completely absent here. For example, there is no analysis of how the water quality changes would affect the cumulative problem of redressing the dead zone in the Gulf of Mexico or what would need to be done to offset the impacts of this project. To the extent the present situation is discussed, cumulative problems are dismissed in an arbitrary or irrelevant manner. For example, on page 99, after noting that the project area contains some of the largest remaining forested wetland tracts in southeast Missouri, this concern is dismissed with the statement that the Corps found they would remain jurisdictional. This statement ignores the changes in the functional value of these sites.

In general, the project area is of exceptional value precisely because it is of a type that was once ubiquitous but has become extremely rare. The proposed mitigation would not replace apples for apples but, at best, oranges for apples, and it is apples that are in such short supply. The EIS fails to analyze the cumulative effects of the project meaningfully.

VI. Water Quality Analysis

Earlier comments on the potential and likely significant adverse effects of the project on water quality were provided through the reports of Dr. Sheehan and Richard Webster dated June 23, 1999, the affidavit of Dr. Barry Kohl and the report of Dr. Christopher Woltemade submitted in October, 2000.. The new revised draft EIS contains no new water quality analysis and these comments remain fully valid.

provides the largest existing habitat units, and the largest decrease in habitat units with the project in place. There was nothing arbitrary about this rearing mid-season period being selected.

23. The Corps does not agree with this assessment. There is much information in the scientific literature regarding the value of wooded wetlands for fish and other aquatic life. Much work was done by the Corps' ERDC regarding the replacement acreage to compensate fish habitat, and the Corps contractor performed an analysis regarding suitability of various sites. The proposed mitigation sites would provide areas of bottomland hardwood that are inundated during a two-year flood. The sites provide suitable fishery habitat and as such have good mitigation value.

24. The Corps disagrees that the cumulative impacts section fails to adequately follow the 1997 Council for Environmental Quality guidance regarding cumulative impacts, however additional information has been included in Section 5.17. Also, issues that are raised in this comment are thoroughly addressed throughout the main body of the RSEIS and in applicable appendixes. Also, please refer to DOI responses 2, 7, and 8.

25. See response to comment 24.

26. *Section 3.10 Water Quality* of the RSEIS summarizes water quality analyses conducted by Environmental Science and Engineering, Inc. (ESEI) in 1977 and 1978 and by U.S. Army Corps of Engineers (USACE) in 1978 in 1979. The analyses are contained in the *Water Quality* section of the *Technical Appendix* to the September 1980 General Design Memorandum (GDM). As reported in the GDM and RSEIS, the results of those analyses indicate that practically all of the constituents analyzed occurred at concentrations lower than levels established by the U.S. Environmental Protection Agency (EPA) and the State of Missouri. Only one site contained mercury concentrations exceeding regulatory levels. The GDM and RSEIS also report that ESEI analyses in 1977 for pesticide levels in fish tissue indicated mercury concentrations in excess of maximum safe levels for human consumption and that EPA requested further sampling and analyses. The additional analyses indicated mercury and pesticide concentrations below EPA limits.

Section 3.10 Water Quality also summarizes additional/updated analyses completed by USACE in 2000. Methodology for the additional analyses were developed by the Corps' Engineer Research and Development Center (ERDC) Environmental Laboratory (EL) and presented to EPA, USFWS, and the Missouri Department of Natural Resources (MDNR) prior to implementation. All of the agencies agreed that the approach and methodology were appropriate and in compliance with requirements of the NEPA. As detailed in *Appendix I Water Quality* of the RSEIS, and in addition to analyses published by USACE in April 2002, water quality modeling was further updated pursuant to promulgation of the RSEIS in order to analyze impacts with respect to additional and revised project alternatives.

All of the analyses indicate that water quality in the project area reflects conditions typical for areas where agriculture is the dominant land use. The analyses indicate, in part, that pesticide concentrations are relatively low in surface and subsurface waters and water supply concentrations are below water quality criteria for drinking water.

In summary, water quality analyses conducted pursuant the *St. Johns Basin – New Madrid Floodway Project* have been updated and revised appropriately, methodology for the additional analyses were presented to relevant regulatory agencies and determined to be compliant with

We here submit some additional information on two topics. First, the states adjoining the Mississippi River have now joined with EPA in committing to reduce nitrogen flows into the Mississippi by 30% to clean-up the dead zone in the Gulf of Mexico. Reflecting this commitment is a copy of the Action Plan by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force (attached), which includes these states and a recent letter from state governors to EPA Administrator Christine Todd Whitman. As earlier discussed in other comments one of the most cost-effective means of redressing these impacts identified by the Task Force is the restoration of wetlands to filter agricultural drainage water. This project would significantly reduce wetlands perfectly situated to filter agricultural drainage water. No data was collected of the nitrogen load and concentrations coming into the wetland sump area, but it is likely if such data were collected that the project area would be found to provide significant removal of such nitrogen. In essence, the basic effect of this project may be to require that additional agricultural acreage in other areas be converted back into wetlands to offset the increased nitrogen flows.

27

NEPA requirements, and the analyses indicate that implementation of the proposed improvements will result in water quality similar to that of existing water quality conditions during periods of no flooding. Finally, and as stated in *Section 4.10 Water Quality*, USACE will apply for water quality certification once a preferred alternative has been selected. Any additional analyses desired by the State of Missouri will be performed at that time.

27. This project may result in increased buffering zones along streams adjacent to agricultural fields. Further, this project will allow for the ponding of water in a natural sump area. This sump area will act as a large sediment trap and will require routine maintenance with spoils being placed back onto the farmed areas. The water quality of runoff leaving the floodway will be improved by this project.

During the high water periods of late winter through early- to mid-spring, several alternatives considered in this RSEIS allow for river water to enter the floodway through the gravity outlet structures. With the project, this water could be trapped on the floodway until early May when the local levee district would have to evacuate the water for planting. While the water is either trapped and held on the floodway, or there is free connection when the gates are merely left open, there will be decreased water velocities and increased particulate settling. This, again, will serve as a large sediment trap that removes particulate matter and improves overall water quality.

Lastly, since farmers will be putting in crops and harvesting without the risk of backwater flooding, it decreases the chance of large quantities of soil and fertilizer being washed into the river through the gravity gates while the soil is disturbed.

The responses to the Environmental Defense Fund's comments from the September 2000 SEIS, and in particular responses #4, #5, and #70 through #74 are still valid. These were in response to mercury and pesticides concerns.

Second, earlier drafts of the EIS at least discussed the possibility that dredging of the St. James ditch would release mercury, and pesticides into the water column. As the affidavit of Richard Webster commented, the data showed high reason for concern about mercury, and the 1999 draft EIS only stated in a summary manner, without backing of analysis data presented in any documents, that mercury was not a concern. However, the earlier draft dismissed these concerns largely on the basis of analyses performed in 1978. No updated sampling has been done.

28

28. Refer to EDF Responses #26 and #27.

Since 1978, there has been a dramatic improvement in sampling techniques and analytical methods and corresponding legal requirements. In 1997, the Corps established a leachate guidance testing memorandum to reflect the new science (available at <http://www.wes.army.mil/el/dots/pdfs/letter.pdf>.) Extensive additional information is available through a suite of guidance materials available at <http://www.wes.army.mil/el/dots/guidance.html>. The information reflects the major changes that have occurred in the understanding and sampling of potential contaminants since the work done in this study. Studies dated from 1978 are simply out of date.

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29. Noted, no additional sampling and analysis is planned. Refer to EDF Responses #26 and #27.

Alternative 3-1-A would excavate 2,432,000 total cubic yards of material from the St. Johns Bayou basin, sediments eroded from agricultural lands that used heavy quantities of pesticides for decades. The limited data used is not acceptable given the improvements in sampling and analytical techniques and chances in criteria particularly for a site that is closely analogous to the Big Sunflower River discussed in the Kohl affidavit.

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30. Refer to EDF Response #29.

In any event, the new draft EIS offers virtually no discussion of these issues at all. For this reason, it is impossible to determine if the Corps is still relying on these out of date studies. The Corps should republish a draft EIS that includes appropriately data developed using up-to-date techniques and that permits comments on the Corps' approach to this issue.

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31. Refer to EDF Response #26.

Among other requirements of a 404(b)(1) analysis is a determination of whether a project meets state water quality standards. The 404(b)(1) analysis fails to discuss any state water quality standards. For the reasons presented in our comments and various papers, we believe this project violates several Missouri water quality standards including 10 CSR 20-7.031(12), (3)(G), 20-7.031(4)(D)(Q), and 2(B). The project may also be violations of other standards related to toxicity but Insufficient data are present to permit this analysis. We similarly believe the project violates water quality standards for the Gulf of Mexico.

32

32. The 404(b)(1) Appendix has been revised. As stated in the previous SEIS, from a water quality perspective the results of analysis indicate there will be no discernible overall impacts to the water quality of the Mississippi River.

Water Quality Certification is required for this project. The Missouri Department of Natural Resources is the agency that is responsible for the 404(b) evaluation, and they are the agency that will either grant certification or request additional information. The Corps will follow their direction.

VII. Mitigation

In violation of established procedures under the Clean Water Act applicable to Corps projects, the draft EIS continues to fail to set forth specific mitigation sites and specific mitigation plans that are necessary to permit an evaluation of the viability of mitigation and likely costs. However, the revised draft does identify a variety of potential mitigation sites. Nowhere does it describe the availability of these sites and apparently some may already be designated for use for mitigation for other purposes or may even involve public land. This identification of potential sites is still inadequate for reasons discussed previously in the affidavits of Logan Russell, and Dr. Leonard Shabman and Dr. Dennis King.

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33. Refer to DOI/USFWS Responses #15 and #16.

Because the mitigation site description is not precise, it may also be the case that some of the identified potential sites are not available. For example, the Eagles Nest site may already be the site of a Wetland Reserve Program project. Similarly, one of the sites as St. Johns Bayou may also be a preexisting mitigation site of a private wetland permit.

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34. It is possible that not all of the potential mitigation sites would be available via willing sellers. This is why 15 potential mitigation sites have been identified. The total acreage reported in the draft RSEIS for the 15 identified sites is approximately 26,500 acres (Appendix L, Section 10.1). The sites deemed most suitable (Appendix L, Section 10.2) consist of approximately 9,000 acres for in-kind fishery mitigation, while an additional 1,845 acres are frequently flooded areas in the St. Johns Bayou. These 9,000 and 1,845 acres do not include Big Oak Tree State Park. Mitigation measures at the park will be implemented upon the start of project construction. This accounts for an additional 1,000 acres. Also, there is a valuable area upriver that is routinely impacted by Mississippi backwater (Site 6, Headwater Diversion). The Little River Headwater Diversion is located just south of Cape Girardeau and has about 1,000 acres suitable as in-kind mitigation.

With the inclusion of these possible mitigation sites, the Corps believes the goal of the mitigation plan (8,375 acres of reforested, frequently flooded acreage available to fisheries) is realistic and obtainable.

Refer also to DOI/USFWS Responses #15 and #16.

However, what is clear from the new sites is that no hydrologic restoration is contemplated. For this reason, the mitigation cannot result in no net loss of wetlands. The revised EIS acknowledges that many cropped wetlands will lose their wetland hydrology, and the lack of hydrologic restoration means that no new wetlands will be restored in their place. This action therefore violates the Corps's Memorandum of Understanding with other agencies regarding wetland mitigation.

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35. The document never states that many cropped wetlands will lose "their" wetland hydrology. This is a point that the Corps has repeatedly made. Due to a reduction in backwater flooding in both areal extent and duration, some cropped wetlands would (if the NRCS wetlands guidance was not applicable to farmed wetlands) potentially not meet the minimum possible inundation criteria established in the Corps Wetlands Delineation Manual. This is the 5% (12 day) duration criterion. However, these acres may still meet that 5% inundation criterion due to conditions that currently exist in the floodway and in the St. Johns Bayou. As stated in several places in the RSEIS, other factors include headwater flooding, interior precipitation, poor drainage, seepage/high water table, and soil conditions.

The Corps' position is that all forested jurisdictional wetlands will retain jurisdictional status. As a result, the maximum potential loss of jurisdictional wetlands (from those not currently forested) will be less than 7,418 acres of farmed wetlands. Furthermore, the Corps, in consultation with DOI, has proposed mitigation for the recommended plan that will result in the reforestation of 8,375 acres of previously cleared lands in or near the project area. This reforested acreage will become jurisdictional wetland. As a result, forested wetlands in the project area will be more than doubled.

More fundamentally, as a new report of the National Academy of Sciences has reiterated, hydrology is critical to all wetland restoration and wetland functions. The failure of the mitigation to perform any hydrologic mitigation or even to analyze the mitigation that will exist is a crucial failure.

Similarly, the revised EIS still fails to demonstrate that the mitigation will be successful or to account for any risk of failure. The excerpts from the new report of the National Academy of Sciences demonstrate that most wetland mitigation has not been successful. National Research Council, *Compensating for Wetland Losses Under the Clean Water Act* (2001). The EIS assumes that the mitigation will be fully successful. This factual experience precludes any reasonable finding that mitigation will mean that the project will not cause adverse environmental affects.

Finally, the mitigation continues to fail to account for the functions lost during the mitigation period when reforestation occurs. The EIS makes a passing reference that fishery functions are not dependent on mature forests. However, that claim contradicts the claims that flooded forest land so surpasses flooded farmland in fishery value that reforestation alone mitigates for the loss of flooded acres. As Dr. Sheehan points out, there is no scientific basis for this assertion.

VIII. Acres with reduced flood damages

At no point does the EIS or any attached document reveal precisely which acres are flooded to which frequency without the project and how this flood regime will change with the project. No such map is provided. This is the single most basic information required to analyze the benefits and costs of the project. Without this information, it is really not possible to evaluate the overall quality of the analysis.

The information that is presented raises serious concerns. For example, the economic analysis states that benefits are anticipated on 37,305 acres of land that is now subject to flooding once every three years but will no longer be flooded so frequently. Page 15, Appendix B. It similarly states that the project will reduce acres flooded by headwater in the project area at least every other year from 21,631 acres to 20,360 acres. But elsewhere, the EIS indicates that on average in the New Madrid Floodway, the project will only mean the reduction of average flooding in April on 990 acres, and only 29 acres in May. This average number would suggest minimal project benefits.

Only more precise information would allow a proper evaluation of the economics of the project and the economics of alternatives. The EIS should be represented in draft form with clear maps indicating which acres have which degree of flood frequency and for how long, and how these flood levels and frequencies would be reduced by the project.

IX. 401 Certification

Previously, the Corps sought Section 401 certification from the state of Missouri. It has withdrawn this application and now indicates that it will only seek 401 certification after

36. Refer to DOI/USFWS Response #2 and EDF Responses #35 and #36.

37. GIS and hydrology data in the project area show significant areas above an elevation affected by frequent backwater flooding (290 feet NGVD), as well as areas above very infrequent backwater flooding (300 feet NGVD) that are wetlands. Further, field verification by biologists from the Corps supported the wetland delineation (Section 4.3.1). This field verification is described in Appendix D and supports that there are other factors, including headwater flooding, interior precipitation, poor drainage, seepage/high water table, and soil conditions, that affect wetland hydrology in the lower floodway.

With the knowledge that existing wetlands are present due to factors other than river backwater, the Corps believes that there will not be a distinguishable loss of wetland functionality. In fact, the ability to restore hardwoods on many currently cleared acres will likely increase the net wetland functionality of the project area as a result of the recommended plan.

38. The quality of existing conditions in the project area with respect to wetlands has often been overstated or misrepresented by project opponents. It is clear that cultivated lands provide less functional value for spawning and rearing fish than do bottomland hardwoods. The relative value of rearing and spawning habitat for different land cover types is provided in Appendix G, Tables 5 and 6. In every case, except white bass and buffalo rearing habitat, bottomland hardwoods possess a greater value than cultivated lands. For spawning, bottomland hardwoods have a greater value than cultivated areas. Sites for attachment of eggs and protection from predation afforded by bottomland hardwoods enhance the fish nursery aspects of wetland functionality even more. Even if the fishery is not the primary concern, buffering and the slack pockets afforded by forested wetlands make these areas comparable to, or greater than, the cultivated lands in terms of wetland functionality. Refer also to EDF Response #5.

39. Refer to Figures 3 and 5 in Appendix A for the extent of existing flood events. Refer to Table 2-1 for post project flooding extent.

40. The statement in question actually indicates that the project will reduce acreage flooded by headwater in the project area at least every other year from 21,631 acres to 1,271 acres, a reduction of 20,360 acres. See Appendix B.
The 990 acres during April and 29 acres during May were taken from Tables 5.1 and 5.2 of the draft RSEIS. These values represent that acres corresponding to a mean monthly elevation change from existing conditions to the authorized project, Alternative 2. This does not represent a frequent (i.e., two-year) or greater flood event. Also, please refer to DOI comment 98.

41. Appendix B has undergone a detailed technical review. It is consistent with current Corps regulations and guidance.

42. MDNR has participated in interagency meetings and has had opportunity to comment on project formulation. They have requested that application for water quality certification be made based on final project design. The Corps has requested certification and will provide all comments received

project completion. However, as indicated by the Missouri DNR in its original grant of certification, the certification could require extensively greater mitigation for the project, which would in turn affect project design and project economics. For this reason, it is inappropriate to design the project first and then seek certification.

on this final RSEIS for their consideration in granting or conditioning certification. Based on current project design, including proposed mitigation and significant additional avoid and minimize measures, the Corps does not anticipate that MDNR will request more compensatory mitigation than is currently proposed.

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December 14, 2001

Colonel Jack Scherer
Memphis District Engineers
US Corp of Engineers
B202 Clifford Davis Federal Building
Memphis, Tennessee 38013-1894

Dear Colonel Scherer,

We appreciate your consideration in allowing us to express our support for the St. Johns New-Madrid Floodway Project. It is our hope the Corp can move forward and complete what is to us the number #1 priority, construction of the 1500 ft. levee closing the gap. This will provide flood protection that will benefit both the residential and agribusiness community.

Area farmers have made concessions for environmentalist in the past and at times have come to agreement. Farmers continue to compromise though opposition vacillates on what are acceptable concessions in an effort to forestall the project construction altogether.

Thank you again for allowing us to comment. We look forward to a day when the project can be completed.

Yours truly,

James E. French
President
French Implement Co., Inc

The Corps appreciates your interest in the project and thanks you for your letter.

08-W

MISSISSIPPI RIVER BASIN ALLIANCE
MINNEAPOLIS [HQ] · NEW ORLEANS

COMMENTS ON THE REVISED SUPPLEMENTAL ENVIRONMENTAL IMPACT
STATEMENT FOR THE ST. JOHN'S BASIN-NEW MADRID FLOODWAY PROJECT
(OCTOBER 2001)

PREPARED BY:
MARK N. BEORKREM
NAVIGATION/FLOOD DAMAGE REDUCTION PROJECT
DIRECTOR
MISSISSIPPI RIVER BASIN ALLIANCE

January 18, 2001

The Mississippi River Basin Alliance appreciates this extended opportunity to comment on the RSEIS for the St. John's Basin/New Madrid Floodway Project. This is a complicated and highly controversial project affecting the entire lower Mississippi River basin in its impacts and decisions surrounding its implementation need to be carefully considered.

The Mississippi River Basin Alliance is comprised of 159 social, environmental, and community organizations throughout the greater Mississippi River Basin from the headwaters to the Gulf of Mexico. As a regional coalition of very diverse, cultural and economic populations, we represent significant numbers of individuals and groups affected by actions the Corps of Engineers may take in regard to the proposed project.

MRBA wishes to address five key issues regarding this project: (a) closure of the mainline levee; (b) protection and enhancement of Big Oak Tree State Park; (c) protection of property and access to property for residents of Pinhook; (d) stormwater protection for residents and businesses of East Prairie; and (e) agricultural intensification of the project lands.

Closure of the Mainline Levee:

Closure of the 1500-foot gap by mechanical means as outlined in the RSEIS would have devastating, long-term impacts on the diversity and viability of numerous aquatic species within the lower Mississippi River Basin. As outlined in the RSEIS and accompanying Fish and Wildlife Coordination Act Report, the shallow, slow moving water created by the backflow from the Mississippi River creates the ideal habitat for resting, spawning and successful rearing of species that evolved within the historic Mississippi River floodplain. In a region that has lost over 95% of its historic floodplain, this being the final reach that still retains a somewhat natural process within the entire lower basin along the main-stem of the Mississippi River system, this action to significantly modify this critical habitat represents an inappropriate Federal investment to benefit very few private landowners, threatens the integrity of a already significantly degraded ecosystem, and is a violation of Corps Principles and Guidelines, and Corps policies as outlined in Corps Engineering Regulation.

Appendix C of ER 1105-2-100 (Principles and Guidelines Notebook) outlines US Army Corps of Engineers guidelines for Civil Works projects and the goals for implementation of Corps projects.

At C-1.1: With respect to "protecting the Nation's environment", the Corps has adopted the standard that it "is achieved when damage to the environment is eliminated or avoided and important cultural and natural aspects of our nation's heritage are preserved."

The US Fish and Wildlife Service, US Environmental Protection Agency, Missouri Department of Natural Resources, and Missouri Department of Natural Resources, have all

1 1. Noted.

2 2. Refer to DOI/USFWS Responses #2, #7, and #8. The project was formulated in accordance with planning regulations in which Principles and Guidelines form the framework. Within this framework, the Corps has sought balance between economic development and environmental needs. The project would benefit a large number of residents in both basins.

3 3. Refer to Mississippi River Basin Alliance (MRBA) Response #2.

previously commented and continue to point out the critical nature of the 1500 foot gap in the Mainline Levee and resulting back-flooding behind the levee. These Natural Resource Agencies are essentially placing these characteristics in the category of a **"Significant Environmental Quality Resource"** C-3.18 (b) because it provides functional and structural aspects that require special consideration because of their unusual characteristics.

The levee gap provides functions that classify it as **essential fish habitat**, classified as those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity. The resource to be affected by the levee closure certainly falls within the category of a significant national environmental resource due to its uniqueness and scarcity as the only remaining naturally functioning intermittently flooded floodplain resource along the mainstem of the Mississippi River in the lower Missouri region. Page 17 of the RSEIS points out: "The project area contains more diverse habitats and natural communities than elsewhere in the Missouri Bootheel... in spite of numerous modifications, the varied habitats within the project area contribute significantly to Missouri's biodiversity. Although greatly altered, the project area still functions as an integral part of the ecology of the lower Mississippi River."

Further, ER 1110-2-8154, Water Quality and Environmental Management for Corps Civil Works Projects discusses Corps policy in regards to planning and management activities. Section 6 (a) outlines the following:

Federal antidegradation policy maintains and protects existing high quality waters where they constitute an outstanding national resource. Where the quality of a water resource supports a diverse, productive, and ecologically sound habitat, those waters will be maintained and protected unless there is compelling evidence that to do so will cause significant economic and social harm. No degradation is allowed without substantial proof that the integrity of the stream will not diminish.

Section 6 (b) continues: Corps management responsibilities extend throughout the area influenced by and influencing the water we manage. ...It is Corps policy to develop and implement a holistic, environmentally sound water quality management strategy for each project. This strategy must be developed in concert with other authorized project purposes. However, the environment will be addressed **as equal in value and importance to other project purposes** when developing or carrying out management strategies. (emphasis added)

Section 7 (a):...It is the policy of the Corps that the environment be given equal standing not simply consideration in all aspects of project management and the operational decision-making process.

Section 7 (c)... Environmental success will not be measured by production of single or limited number of species, or enhanced recreational activities, but by expertise in reestablishing flow regimes, rehabilitating wetlands and riparian areas, managing sediment delivery, controlling the chemical and physical aspects of the aquatic systems, and overall ability to restore a dynamic, self-sustaining aquatic ecosystem.

The RSEIS fails to adequately address the significant and potentially devastating impact that reducing flood flows into the project area will have on the current functions of wetlands. Hydrological reviews indicate that indeed, many currently farmed wetlands (a majority of the land in the project area) will likely lose their wetland functions, leading to critical permanent unmitigated losses to the natural resources. Reducing the current cycle of inundation and saturation from back-flooding of the area, in an area in which most agricultural land requires summer time irrigation to maintain productivity, is a prime example of the devastating impact any modification of current flows will have in the project area. The RSEIS fails to provide any studies or hydrological models quantifying project effects on water quality, nutrient cycling, detrital import/export, floodwater storage, and habitat for native reptilian and amphibian species in the project area. ER 1110-2-8154 clearly specifies the breadth and depth of management concerns to be considered in this regard for Corps Civil Works projects.

The RSEIS implies throughout the narrative of proposed modifications, that the replacement of the natural hydrograph/connectivity of the floodplain as now exists, with an artificial water control system is the environmentally preferred alternative. This is highly contradictory to

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4. Refer to MRBA Response #3.

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5. Refer to MRBA Response #4.

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6. Refer to EDF Responses #26 and #32.

7

7. Refer EPA Response #7.

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8. Refer to DOI/USFWS Responses #2, #8, #18, #19, #22, #26, and #68, EPA Responses #5-#9 and #21-#22, and EDF Responses #19, #22, #26, #27, #32, #35, #37, and #38.

9

9. Refer to DOI/USFWS Response #2. The Corps does not imply that the Recommended Plan is without impact and recommends substantial mitigation to compensate for reduced connectivity

established scientific principles and watershed management practices for conserving and restoring riverine/floodplain ecosystems. One only need refer to the 1994 -1995 documents produced by the Corps and other federal agencies in the aftermath of the Great Flood of 1993 regarding the critical need to preserve natural river/floodplain connections, both for ecological purposes as well as reducing flood damages downstream on the Mississippi River.

The New Madrid Floodway was specifically designed to aid in passing the Project Flood, and it currently serves a flood damage reduction function by providing significant water storage in average flood years. Any modification to close the Main-Line levee gap violates established flood damage reduction science and sound ecosystem management principles.

Finally we wish to comment on proposals to mitigate for closure of the Main-Line levee. The RSEIS fails to identify which lands are obtainable from willing sellers as part of the mitigation package. Indeed much is made of the fact that landowners in the region have been unwilling to sell any significant acreage for mitigation purposes. In a scenario where agriculture use would be intensified if the project proceeds, in it unlikely that the Corps could obtain the necessary land within the project area for mitigation work.

The second and most critical failure of mitigation proposals is that of utilizing "batture" lands for mitigation of portions of the project ecological functions. Batture lands, by their very nature, of being on the riverside portion of the levee, fail to provide critical ecosystem functions during flood periods. Minimal if any shallow, slow moving water is to be found riverside of levees during flood periods in this region. The RSEIS fails to provide any modeling to show otherwise. The critical ecological functions of shallow backwater habitat during flood periods is vital to the successful propagation of many riverine species and the RSEIS mitigation proposal totally ignores this vital function of the without project condition. Additionally sites already providing such functions without the project should not be considered mitigation for losses incurred with the project. The RSEIS fails to point out that conservation management areas within the project area, and the batture lands should be considered inappropriate mitigation sites.

The Mississippi River Basin Alliance considers the levee gap as a vital and solely remaining connection with the natural floodplain functions of the Missouri portion of the lower Mississippi River. As such it is an irreplaceable biological and ecological resource that is unmitigatable and ANY modifications to the natural flow through the gap is inappropriate under current Federal law. The Corps should respect the scientific experience and expertise provided by the natural resource agencies and work with them to preserve this critical habitat.

between the Mississippi River and the New Madrid Floodway.

10

- 10. Extensive modeling of the Mississippi River Levee has been conducted in order to compare current system response to response after project implementation. Modeling results are presented "Transmittal of the Mississippi Basin Model Letter Report 89-1, Birds Point-New Madrid Floodway Reconnaissance Study," dated July 27, 1990. The report reflected steady -state Project Design Flood (PDF) tests and PDF hydrograph tests with respect to the 1986 Plan of Operation for the New Madrid Floodway.

The results from the steady -state PDF tests comparing current conditions with and without the 1500-foot levee closure indicate very little difference in stages at Mississippi River gage locations. The only measured increases in stages with the closure were at Hickman, Kentucky and H.W. 173, which were 0.1 feet and 0.3 feet higher, respectively. A 0.1 feet decrease in stage was measured at the New Madrid gage for the test with the closure. The maximum increase in water surface elevation at stations along the riverside of the frontline levee was 0.5 feet at levee mile 81.

Typically, the Mississippi River system response to flood events can be characterized by slow rising stages with prolonged crests. Under this condition, the difference in response of the Mississippi River system with the 1500-foot closure compared to current conditions would be negligible both in terms of stage and duration.

Indications from the results of the PDF hydrograph tests presented in the referenced letter report are that flood events that have rapidly rising stages and short crests may increase stages along the Mississippi River from the vicinity of New Madrid downstream approximately 85 miles. The maximum stage increases for significant flood events (10-, 25-, 50-year, etc.) predicted would be less than one foot with the majority increase limited to a few tenths of a foot or less. The increase in stage would be due to the loss in storage at the lower end of the New Madrid Floodway. The difference in duration of flooding with and without the closure would be insignificant.

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- 11. Refer to EDF Response #34.

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- 12. Refer to DOI/USFWS Response #16 and #91.

13

- 13. Refer to MRBA Response #2 and EPA Response #10.

Big Oak Tree State Park

The revised RSEIS does not incorporate measures to adequately protect and enhance Big Oak Tree State Park from changes in water quantity, chemistry and source. This extremely unique bottomland hardwood forest remnant requires immediate and critical mitigation already for damage being caused by agricultural land use adjacent to the park. The federal and state resource agencies have already identified actions necessary to preserve the integrity of this park, have identified that the project as proposed would intensify damage to the park, and the project proposal lacks adequate safeguards and mitigation for this natural resource.

The Corps Principles and Guidelines makes special note of the importance of Bottomland Hardwood Forest Habitat. Numerous scientific publications note the severe destruction of this resource in the lower Mississippi Valley region, and those same publications note the critical nature such contiguous and productive habitat provides for Federally protected migrating Neotropical Songbirds, and the importance that the size of such forest plays in preserving nesting and rearing for such species. Since the original write-up and comments received in the SEIS for this project published in September 2000 noted the critical minimal steps necessary to retard further degradation of this National Natural Landmark habitat, such procedures should be implemented by the Corps and its partners as soon as possible and any further potential impacts need to be avoided, rather than mitigated. This is a highly critical Ecological Resource for the Nation supported by the naturally occurring back-flooding allowed by the existing gap in the Main-Line Levee. Immediate steps to acquire adjacent already intensively farmed bottomlands to provide a buffer to preserve and protect ponding and natural water flows into the park are a critical and necessary mitigation for past Corps flood-control work and local actions threatening the survival of this resource.

Village of Pinhook

MRBA notes the unique social history of the residents of the Village of Pinhook. Some are descendants of freed slaves who migrated to southeastern Missouri in the 19th Century to prime agricultural lands only to be displaced from those lands and driven to the less desirable Mississippi River bottomlands found in the project region. These residents have expressed a desire for protection of their homes and adequate ingress/egress to their properties when flooding does occur.

It must be noted that historically these remaining residents have not been able to retain culturally significant properties due to the regular flooding that occurs within the New Madrid Floodway. A tour of the Village reveals virtually all of the properties date newer than the 1950's. There exist less than thirty residences in the community. It is also a certainty, based upon the Federal investment in developing the Floodway, that at some point in time, the Floodway will need to be used to relieve main-stem Mississippi River flooding, and catastrophic property damages will occur to residences in Pinhook in this flood. As such, residents are discouraged and should be discouraged from making significant property investments in this Floodway. The existence of this community within a Floodway, particularly one as critical as the New Madrid Floodway may be to a future catastrophic lower Mississippi River flood, does not justify creating conditions for further infrastructure improvements that may encourage placing additional properties within the Floodway and within Pinhook.

However the Corps of Engineers, working with other Federal and State programs, has options, not fully developed as part of the without project condition, that would alleviate access problems caused by the intermittent back-flooding caused by the 1500-foot Main-Line Levee gap, that provides the rich, and diverse ecological resource that exists in the Floodway. We propose that the Corps, working with other Federal and State agencies, develop and implement plans to raise one roadway into the Village of Pinhook to allow egress under predictable recurring back-floods from the levee gap. The State of Missouri and the Federal Government, desiring to preserve the unique social character that is Pinhook, rather than relocating the residents from flood harm, as has been done at locations such as Valmeyer, Illinois and Soldiers Grove, WI., should take such steps as are necessary to provide adequate ingress/egress to the Village, without destroying the unique natural

M-84

14

14. Refer to DOI/USFWS Response #110 and to MDNR Comment and Response #1.

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15. The Corps' proposed mitigation plan will result in a more than doubling of bottomland hardwood habitat in the project area and analysis indicates that many species will be more than fully compensated by the proposed mitigation. Many of the problems with Big Oak Tree State Park result from adjacent land use that makes it difficult to manage the park lands. The Corps will work with MDNR to develop and implement a water management plan for the park and favorably views acquisition and reforestation of adjacent lands to be added to the park.

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16. Noted, concur.

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17. Residents are in effect discouraged from building in the floodway. Federal Emergency Management Agency (FEMA) does not provide flood insurance for these residences. It is unlikely that any person could obtain funding from established lending institutions under normal terms for the purpose of residential construction in the floodway. Since the floodway, and the potential use of the floodway during a project flood, is in no way affected or de-authorized by this project, this fiscal reality will not change.

18

18. The residents of Pinhook will benefit tremendously from this project, whether they farm on the floodway, own floodway land, or commute out of the floodway to work, because the area economy is directly dependant on agriculture.

MRBA's comments regarding ingress/egress are noted.

resource base around which the Village historically developed. It should be pointed out, that the vast majority of the residents of Pinhook do not benefit from the agricultural intensification of the region provided by the proposed project. Plat Maps of land ownership in the project area show that the majority of land benefits accruing from the project are not owned or farmed by Pinhook residents. Further the project does not propose ANY flood protection levees for the village or any road improvements. Benefits solely accrue to the community indirectly through reductions of the back-flooding, which is already identified as highly critical for natural resource functions of the greater southeast Missouri bootheel region.

Municipality of East Prairie

The project proposes to alleviate stormwater drainage problems for the Municipality of East Prairie by dredging and modifying sections of St. James' Ditch. It is difficult to understand how this ditch clearing will alleviate stormwater issues for a municipality that lacks adequate storm water facilities throughout the town. The RSEIS fails to identify for the reader the extensively deteriorated and in many cases totally nonfunctioning storm water system within the town. There exist no drainage ditches along roadways, minimal functioning stormwater sewers are rarely seen, and in a town built on very flat ground, these failures will not be alleviated by the work proposed on the nearby ditch outside of the occupied portion of the town. The failure of the Corps to minimally address these existing infrastructure failures within East Prairie means the justification for the St. James Ditch portion of the project fails its main social and economic justification. Corps models fail to specify how water flows out of the town to the St. James' ditch without these in-town storm-water management structures.

MRBA proposes that the first step for resolving East Prairie storm water drainage concerns begins not with the Corps of Engineers but with other Federal and State agencies set up to deal with remediation of stormwater infrastructure. Only after adequate installation of such facilities within the town, should modifications to the Ditch be considered, and only then with sufficient safeguards as specified by appropriate natural resource agencies to provide protection for the natural resource functions.

It is noted that the proposed East Prairie protection portion of the project proposes to alter the hydrological value of 55,000 acres within the area, much of that likely functioning wetlands or farmed wetlands. The RSEIS fails to adequately mitigate for such extensive modifications to a wetlands resource already significantly devastated by drainage and modification. Significance of the impacts of this wetlands resource is demonstrated by the facts that the State of Missouri has already lost over 80% of its pre-settlement wetlands, and the continuation of Corps projects to add to those losses is a violation of Corps and Federal wetlands policies and guidelines. The NEPA process requires consideration of Cumulative Effects of Corps projects and taken in context, the conversion or depletion of tens of thousands of acres of already scarce wetlands demands protection of these scarce remaining resources.

Agricultural Intensification

A tour of the project area reveals intensive agriculture practices already exist. While current landowners complain about the backflooding caused by the levee gap, they also later in the year practice intensive irrigation as demonstrated by the proliferation of functioning irrigation systems installed in the project area. The Corps modeling fails to address what additional irrigation practices will have to be instituted to achieve the supposed high crop yields that provide the cost/benefits ratios justifying the project work in a scenario in which the lands lose their regular flood inundation and/or saturation. Particularly reducing the saturation values of marginal lands would seem to indicate irrigation would be required sooner and more frequently than is currently practiced.

Second, the RSEIS proposes that allowing intensification of cropping in the area will allow an increase in employment and greater profits for the region. As a tour of the Floodway reveals, there actually exist very few individually farmed tracts in the project area. Much of the project area is dominated by a very few large farms, utilizing a combination of owned and

19 19. Regardless of the condition of the interior drainage system in East Prairie, an outlet that can carry floodwaters away from the town and toward the proper basin channels is required. The comment concerning the failure of the RSEIS to identify to the reader the deteriorated condition of the East Prairie interior drainage system is incorrect. Refer to Appendix B, for the analysis of Alternative 4. The Corps and local residents have acknowledged that the subject culverts have been neglected and have fallen into disrepair. Furthermore, the economics of the improvement of these interior drainage features are factored into the economic analysis. Refer to EDF Response #4.

20 20. Refer to DOI/USFWS Responses #2, #7, and #8, as well as EDF Response #24.

21 21. The farmlands located within the project area are far from marginal. These lands are some of the best croplands located in the State of Missouri. With implementation of the project these lands will become even more productive. The crop budgets used in the economic analysis do in fact include many additional irrigation practices needed to achieve higher crop yields. However, not all benefits are derived from higher crop yields. Instead, the majority of benefits are achieved by reducing flood damage to existing cropping practices. A further benefit is expected from a shift from lesser value crops like soybeans to a higher value crop like corn.

22 22. The trend toward fewer and larger farms merely reflects the overall trend in agriculture. What is happening in the project area parallels the trends in the rest of the United States. Regardless of the number of property owners or farm operators, the benefits accruing to the project are no less

leased/rented lands. Examination of the plat maps reveals that most landowners in the area are not active farmers, but are primarily deriving their benefits, from non-farm employment. Concentration of the worked land being done by a few large farms means intensification will add nothing to the employment base of the area. The machinery available to the active farms in the region do not require any additional employees to run the equipment or service the region for seeds, fertilizers, etc. The Corps provides no peered review data to demonstrate any employment benefit increases from the project. In Mississippi County, \$54.7 Million in Federal farm subsidies were received in the last five years, however much of that was concentrated in 65 recipients, who averaged \$50,000 or more per year in subsidy payments garnering \$23.2 Million, or 42% of the total five year payouts. 198 individual recipients (the top 20%) controlled 78% of the total fiveyear payouts.

The second failure of the RSEIS regarding returns from increased cropping is the failure to consider the declining returns for the types of crops presently being grown in the project area. Corn, soybeans and cotton are all exhibiting historic or near historic low prices due to worldwide depressed prices. The Federal government is already heavily investing in federal compensation programs to farmers in the affected counties to support their agriculture practices. Adding additional acreage or increasing yields only requires further federal investment for such agriculture bailouts and is not reflected in the total costs of the project. The NATIONAL ECONOMIC DEVELOPMENT (NED) interest is not furthered when a primary return to the beneficiary is federal farm bailout monies.

Conclusion:

The Mississippi River Basin Alliance recommends the US Army Corps of Engineers revisit the proposal to close the 1500-foot gap in the Main-Line levee. The proposal to close fails to consider the unmitigatable nature of losing the last remnant connection within lower state of Missouri between the Mississippi River and its original floodplain, a connection and a Nationally Significant natural resource value that far outweighs the increase in heavily subsidized crop intensification values desired by local sponsors. The National Interest, which should be the primary determinant of recommendations of the Corps of Engineers, is not served by benefiting a few wealthy landowners at the expense of the fragile and critically important ecosystem.

MRBA also rejects the flood damage reduction planning for Pinhook and East Prairie as ineffective and inappropriate remedies for those communities. Unexplored flood protection alternatives exist for those communities, that do not significantly impact on the natural resource base, and in the case of East Prairie, should require assistance from other federal or state agencies in building in-town infrastructure to convey storm water through the community. We urge the Corps to reconsider its flawed recommendations for these communities and develop a comprehensive and ecologically justified program to preserve property and protect natural resources. Corps and National policy require nothing less.

In closing we repeat a Corps policy statement:

"Environmental success will not be measured by production of single or limited number of species, or enhanced recreational activities, but by expertise in reestablishing flow regimes, rehabilitating wetlands and riparian areas, managing sediment delivery, controlling the chemical and physical aspects of the aquatic systems, and overall ability to restore a dynamic, self-sustaining aquatic ecosystem." (ER 1110-2-8154)

real. The benefits are economic efficiency increases that accrue to the nation as a whole as direct flood losses are reduced and the area farmers are better able to manage their operations as the risk of flood losses is reduced.

As additional investments are made in an economy and economic constraints are removed from an economy, it follows that more jobs will be created or the quality/quantity of work for existing workers would be improved. In Comment #21, MRBA argued that additional investments in irrigation equipment must be made. In this comment it is argued that no additional investments need to be made. If additional investments in irrigation must be made, then it is clear that additional employment opportunities are created at a minimum for the people who will be installing the new irrigation equipment. Further, it must be noted that the benefits used in the benefit to cost analysis of the project are not dependent on increased employment. Instead the benefits are economic efficiency increases accruing to the nation as a whole due to the reduction in direct flood losses and increases in the efficient use of the nation's scarce resources.

The receipt of Federal farm subsidies by farmers within the project area reflects the general trend in agriculture nationwide. However, the payments to farmers within the project area should be reduced significantly as flood losses to crops are reduced and crop disaster assistance is no longer needed.

23

23. The project will reduce direct flood losses and allow the area's farmers to shift to more profitable crops and cropping practices as the risk of flooding is reduced. Instead of making the area's farmers more dependent on Federal payments, the project should permit the area's farmers to become more profitable and less dependent on Federal payments to survive. The project should also greatly reduce the Federal disaster payments that are made after damaging flood events. It is agreed that the NED interest is not furthered by making farmers more dependent on Federal payments. However, it must be emphasized that the project should make the area less dependent on Federal assistance.

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24. Refer to MRBA Responses #2 and #18.

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25. Refer to MRBA Response #19, EDF Response #4, as well as Appendix B of the report.

26

26. Refer to MRBA Responses #5.

The project as proposed violates significantly violates this Corps policy and fails with its mitigation proposals to safeguard critical Nationally -Important natural resources sustaining the middle and lower Mississippi River flora and fauna.

Sincerely,

Mark N. Beorkrem
Navigation/Flood Damage Reduction Project Director
Mississippi River Basin Alliance
P.O. Box 370
204 N. Wyandotte St.

MISSOURI COALITION FOR THE ENVIRONMENT

6267 Delmar Blvd. 2-E • St. Louis MO 63130 • 314-727-0600 Fax: 314-727-1665 •
moenviron@moenviron.org • www.moenviron.org

January 2, 2002

VIA EMAIL & U.S. MAIL

Commander
Memphis District, U.S. Army Corps of Engineers
ATTN: CEMVM-PM-E
167 North Main Street, B-202
Memphis, TN 38103-1894

Re: St. John's Bayou/New Madrid Floodway Comments

Dear Sir:

The Missouri Coalition for the Environment submits the following comments regarding the Draft Revised Supplemental Environmental Impact Statement ("RSEIS") for the above project. We are also adopting and will be co-signatories on more extensive comments to be filed tomorrow by several environmental and conservation organizations. This letter will provide general comments on behalf of the Coalition and its nearly 2,000 members.

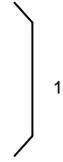
We remain very much opposed to this project on both environmental and fiscal grounds. The already extensive administrative record for this project contains numerous reasons why the project should not be built. Those commenting in opposition to the project in the past include the U.S. Fish and Wildlife Service, Missouri Departments of Conservation and Natural Resources, and many state and national non-profit organizations. The extensive comments previously filed by these entities remain very relevant to the slightly modified proposal discussed in the RSEIS.

[Destroying many thousand acres of wetlands along the already diminished Mississippi River is not in the public interest, especially when the Corps is undertaking extensive efforts in other locations to restore similar habitats. The type of floodplain and wetland habitat provided by current conditions has become extremely rare due to past channelization and drainage projects.] In fact, the Mississippi River has been listed as "impaired" under the Clean Water Act by the State of Missouri due to these losses of natural habitat along its course. Considering all of the negative environmental impacts, this project is in clear violation of numerous state and federal laws.

[In addition to the environmental impacts, the project is troubling because the purported benefits are either miniscule in comparison to the cost or are greatly overstated. Flood protection for the town of East Prairie can be accomplished without spending \$77 million of the taxpayers' money and without destroying the environment.]

[The primary goal of the project appears to be to dry out marginal farmland and allow for increased production of corn and soybeans.]

[There is no public interest in accomplishing this goal, even if feasible, at a time when corn and soybean production is unprofitable and heavily subsidized. Taxpayers will thus suffer a double blow if this project is built, once from paying for the project itself and again by subsidizing additional production of row crops.]



1

1. Corps responses to all previous comments remain valid as well. Please note four additional New Madrid Floodway closure levee locations are considered in the RSEIS, as well as modified gate management approaches that would allow more springtime backwater inundation. There are also additional avoid and minimize approaches that have been incorporated in the document for consideration by USFWS, EPA, MDC, and MDNR.



2

2. The project does not destroy thousands of acres of wetlands. It does reduce backwater inundation on wetlands and croplands in the project area for which substantial mitigation, and also substantial avoid and minimize measures, have been proposed. The project is in compliance with NEPA and other applicable state and Federal laws. Also, refer to DOI/USFWS Responses #2, #7, and #8



3

3. The annual benefits and annual costs of all alternatives presented in the RSEIS are derived in accordance with current Corps policies and regulations. An alternative that would provide flood protection to only the town of East Prairie was considered. The alternative was found not to be economically feasible, with a benefit to cost ratio of less than 0.5 to 1.



4

4. The purpose of the project is to provide flood protection in the St. Johns Bayou Basin and New Madrid Floodway. Flood protection will provide for a reduction in flood damages incurred by the region and the nation. Additional benefits would include reductions in the physical and economic impediments that frequent flooding creates in East Prairie, Pinhook, and several other communities. The lands are not considered to be marginal farmlands but have been, even with periodic flooding, very productive for growing crops.



5

5. There is considerable favorable public interest in implementing the recommended plan, locally and in the U.S. Congress. Regarding economic benefit, the recommended plan, Alternative 3-1.B, is the NED plan and has been developed to maximize net project benefits to the nation as a whole, not just a single community.

M-88

We urge the Corps to abandon this environmentally damaging and wasteful project.
Thank you for the opportunity to comment.

Very truly yours,

Bea Covington
Executive Director

Edward J. Heisel
Senior Law & Policy Coordinator

cc: Governor Bob Holden
Senator Jean Carnahan
Senator Christopher Bond

MISSOURI FARM BUREAU FEDERATION
P.O. Box 658, 701 South Country Club Drive, Jefferson City, MO
65102 / (573) 893-1400

January 4, 2002

Colonel Jack Scherer
Commander
U.S. Army Corps of Engineers, Memphis
ATTN: Environmental and Economic Analysis Branch (CEMVM-PM-E)
167 North Main Street, B-202
Memphis, TN 38103-1894

RE: St. Johns Bayou/New Madrid Flyway flood control project

Dear Colonel Scherer:

On behalf of Missouri Farm Bureau, the state's largest farm organization, I am writing to express support for the St. Johns Bayou/New Madrid Floodway flood control project, specifically leaving the closure in the original design location and not raising the water levels beyond that as outlined in the September 2000 Supplemental Environmental Impact Statement. This much-needed project has been under development for years and residents should not be subjected to further unnecessary delays.

The Corps appreciates your interest in the project and thanks you for your letter.

The St. Johns Bayou/New Madrid Floodway flood control project is a good example of how federal and state agencies with diverse missions and constituencies can work together to develop a viable solution. Natural resource planning is complex and all too often pits one use against another. Yet this project is the product of a coordination process that included both the public and private sectors, from agency officials and farmers to politicians and environmentalists. In the end, the Corps was able to craft a plan that protects not only communities but prime farmland and state facilities while maintaining seasonal backwater flows that provide aquatic and wildlife habitat.

Missouri Farm Bureau urges the Corps to proceed in implementing the St. Johns Bayou/New Madrid Floodway flood control project as quickly as possible. It is a sound project that will provide a combination of economic and environmental benefits.

Sincerely,

Charles E. Kruse
President

cc: U.S. Senator Christopher S. Bond
U.S. Senator Jean Carnahan
U.S. Congressman JoAnn Emerson
Missouri State Representative Lanie Black

06-W

MISSOURI SOYBEAN ASSOCIATION

December 14, 2001

Colonel Jack Scherer
Memphis District Engineer
U.S. Army Corps of Engineers
B-202 Clifford Davis Federal Building
Memphis, TN 38103

Dear Colonel Scherer:

On behalf of the Missouri Soybean Association, I would like to comment on the draft Environmental Impact Statement for the St. Johns Bayou-New Madrid Floodway flood control project, a most needed project in the state of Missouri.

The first point I would like to address is the closure of the gap. We believe this should be at the original 1,500-foot gap location. It protects the greatest amount of land, wildlife, infrastructure and people. Therefore, it has the greatest cost benefit ratio which only makes sense.

The second point is the start-stop pump elevations at 282.5 are already a compromise but would allow planting flexibility provided the February 1 date is adhered to. March and April times start to restrict farming, which hurts this area economically.

The third point I would like to address is that of mitigation acreage. There is good scientifically sound data produced by WES that supports a 6,500-acre number. We believe the 6,500 number is a compromise that is more than fair and would support no number higher than 6,500 acres.

We fully support the flood control and hope the Corps will be allowed to get on with addressing the issue and construct the project.

Sincerely,

Dale R. Ludwig
Executive Director/CEO

1

1. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 3-1.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.

2

2. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan.

M-91

MOUNT LEVEL FARMS CO., INC.

202 E. Chestnut
P.O. Box 9
East Prairie, MO 63845

Phone: (573) 649-2531
Fax: (573) 649-5786

December 7, 2001

Colonel Jack Scherer
Memphis District Engineer
US Army Corps of Engineers
B-202 Clifford Davis Federal Building
Memphis, Tennessee

Dear Colonel Scherer:

I have grown weary of responding to SEIS Publications. Reminiscing of the history of the St. Johns Bayou-New Madrid Floodway flood control project is enough to depress you. Over the years, this project has been studied to death and negotiated to the point of irrelevance. If I may clear the air of politics and focus on rational thinking, I will respond one more time.

The critical points for a valid project should focus on the closure of the gap. This should be at the original 1,500-foot gap location. This has the greatest cost-benefit ratio and only makes sense. It protects the greatest amount of land, wildlife, infrastructure, and people.

Start-stop pump elevations at 282.5 are already a compromise but would allow planting flexibility provided the February 1 date is adhered to. March and April times start to restrict farming, which hurts this area economically.

Mitigation is a sore spot. When this project was first proposed, 2,500 acres were more than enough. Over the years, that number has increased to 9,500 acres. The 9,500-acre number represents rape and, even at this, I hear some want even more. There is some good scientifically sound data that was produced by WES that would support a 6,500 number. When the project has shrunk to one tenth of its original size and with mitigation increased from 2,500 acres to 6,500 acres, this is more than enough compromise.

Finally, for the wildlife enhancement features, the Corps' primary purpose as mandated by congress is to provide flood control for the citizens of these United States. Leave conservation to the landowners who were the first conservationists in this country and by all means, do not request the ability to condemn. These United States should remain free and committed to the principals upon which they were founded.

Regards,

Joe Sorrells
Mount Level Farms Co., Inc.

M-92

- 1. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 3-1.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.
- 2. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan.

Jan 1 2002

Commander Memphis District
US Army Corps of Engineers
Attn: CEMVM PE E
167 North Main St.
B-22
Memphis TN 38103 1894

Dear Sir,

I am writing to provide comment on the proposed New Madrid Floodway/St. John's Bayou Project. I am writing on behalf of the Ozark Chapter of the Sierra Club, representing 10,000 Missouri citizens who value Missouri's rivers, wetlands, wildlife and productive farmland.

We oppose the project. This project represents one of the worst examples of misplaced use of taxpayer's money and will result in loss of wetlands and wildlife habitat and eventually more flooding elsewhere.

The Mississippi River's periodic flooding resulted in fertile soils which have been used for productive farmland in southeastern Missouri. However, the levees and other changes that make those acres more accessible to farming come at a price. This project proposes to further those changes in one area that has not to date been so altered as to close the vital connection between the river and it's floodplain. This project as planned will cause a loss of connectivity between the floodplain and the Mississippi river. This will result in a loss of wetlands and impaired functioning of remaining wetlands in the area, such habitat for fish spawning and rearing and waterfowl feeding. The proposed mitigation measures are not sufficient to offset these impacts.

Thank you for consideration of our comments.

Sincerely,

Caroline Pufalt
Ozark Chapter Sierra Club
Conservation Chair
13415 Land O Woods #3
St. Louis MO 63141 6078



1. Refer to DOI/USFWS Responses #2, #7, and #8, MRBA Response #10, and Missouri Coalition for the Environment (MCE) Response #5.

2. Refer to DOI/USFWS Responses #2, #7, #8, and #15, and EDF Response #38.

M-93

St. Louis Audubon Society

(314) 822-0410

Jim Holsen
419 E Argonne Dr.
Kirkwood, MO 63122

13 December 2001

District Engineer, U.S. Army Engineer District, Memphis
ATTN: Environmental and Economic Analysis Branch
167 North Main Street, B-202
Memphis Tennessee 38103-1894

Ref: Comments, Revised Supplemental Environmental Impact Statement for the St. Johns Basin -- New Madrid Floodway Project, October 2001

To the District Engineer, U.S. Army Engineer District, Memphis:

These comments supplement my earlier response of 24 May 1999 to the DSEIS.

The time for this project has passed. It would have been fashionable when the New Madrid levee closure project was first authorized in 1954, but by the year 2001 we have learned the value of wetlands to a healthy ecosystem. With the draining of the swamps in "Swampeast Missouri," Missouri has lost 90 percent of its original wetlands, as much or more than any other state. Missouri should be restoring wetlands, not draining them.

St. Johns Bayou and the New Madrid Floodway lie on the Mississippi flyway and are important resting places for waterfowl, shorebirds and migrating birds of many other species. The populations of many of these species are in decline due to loss of habitat. This project will eliminate the last remaining connected tributary habitat of the Mississippi River in the Bootheel.

The cost/benefit analysis used as a basis for decision making is flawed in cases like this where social benefits are involved that are difficult to quantify. The value of the lost wetlands, wildlife and wildlife habitat is not considered when calculating the annual return. Yet those lost benefits are very real, just difficult to quantify. That is why this project cannot be justified on the basis of the cost/benefit analyses presented in the RSEIS. Experience shows that mitigation wetlands are no substitute for the original, functional wetlands that have been destroyed.

The St. Johns Basin and New Madrid Floodway Project should not be implemented. No amount of Avoiding and Minimizing can truly mitigate the loss of these functional wetlands.

Sincerely,

Jim Holsen
Past President

1

1. Refer to DOI/USFWS Responses #2, #7, and #8.

2

2. Refer to WGNSS #5, #6, and #7, and St. Louis Audubon Society (SLAS) 1 Response #1.

3

3. While social benefits are difficult to quantify, the value of benefits from activities such as fishing or hunting have been included in the economics by virtue of the real property valuation. The value of the wetlands, wildlife, and wildlife habitat are reflected in the cost of the mitigation package. Mitigation packages are designed to offset all of an alternative's potential losses of fish and wildlife. Mitigation packages were developed for all potential economically feasible projects. These costs are incorporated into the projects' annual costs and benefit-to-cost ratios

4

4. The Corps believes that the proposed mitigation plan that includes reforestation of 8,375 acres of frequently flooded cropland, plus the significant additional avoid and minimize measures proposed for the floodway, will satisfactorily compensate functional losses to wetlands. Refer also to DOI/USFWS Response #15, and EDF Responses #37 and #38.

M-94

St. Louis Audubon Society

December 13, 2001

District Engineer, U.S. Army Engineer District, Memphis
ATTN: Environmental and Economic Analysis Branch
167 North Main Street, B-202
Memphis, TN 38103-1894

RE: Comments, Revised Supplemental Environmental Impact for the St. Johns Bayou-
New Madrid Floodway Project, October 2001

To the District Engineer:

On behalf of the 2200 members of the St. Louis Audubon Society, thank you for the opportunity to submit comment on the Corps' proposal to close the 1500 foot levee gap at the lower end of the New Madrid floodway, thereby separating the floodplain and wetlands in the floodway from the Mississippi River. This issue is of great concern to our organization, as one of our objectives is the preservation of natural ecosystems for the benefit of wildlife. Due to the tremendous loss of wetlands throughout the country, the National Audubon Society has focused on the preservation and restoration of wetlands as one its national campaigns.

Ninety percent of Missouri's original wetlands have been destroyed. Missouri should be restoring wetlands, not planning the destruction of what few wetlands remain. Scientific data show that mitigated wetlands do not function in the same ecological manner as do the natural wetlands they replace. Additionally, the Corps has not shown subsequent adequate monitoring of mitigated wetlands for ongoing viability of these ecosystems.

[The New Madrid Floodway lies on the Mississippi flyway, a major migratory route and resting area for a myriad of avian species, many of which are experiencing population declines.] [Additionally, bottomland plants and trees, especially those found in Big Oak Tree State Park, which has been designated a national natural landmark, depend on flooding as part of their life history. The Missouri Department of Natural Resources realizes the inherent value of this natural resource to the citizens of Missouri and would have to build a berm around the park to retain necessary water at great expense to Missouri's taxpayers.]

[For the Corps to spend nearly 100 million dollars on this project to benefit a few landowners (who could in turn increase farm yields in an era of overproduction, thus further decreasing national farm prices) while destroying what remains of a diminishing natural resource does not make sense. We do not take the concerns of the citizens of East Prairie lightly.] [However, to the extent that Mississippi River backwater is a cause of East Prairie flooding (some sources indicate flooding is caused to a large extent by seasonal storm run-off) we believe that community would be better served by a simple and much less expensive levee constructed to surround and protect those communities and by improved storm-water handling.]

The opposition to this project voiced by Missouri's Department of Natural Resources, Department of Conservation, and the U.S. Fish and Wildlife Service should serve as a strong warning about the deleterious effects that this project would have on the conservation, wildlife, and water resources in this region. We join these organizations in opposing the proposed project. Thank you for considering our comments.

Sincerely,
Susan M. Gustafson
Vice President, Conservation
St. Louis Audubon Society
(home) 429 Belleview Ave.
St. Louis, MO 63119

M-95

- 1. Refer to SLAS1 Response #2.
- 2. Refer to DOI/USFWS Response #110.
- 3. Refer to DOI/USFWS Response #8, MCE Response #4, and MRBA Responses #22 and #23.
- 4. Refer to MCE Response #3.
- 5. Noted; however, MDNR does not necessarily oppose the project. Also, please note that there is considerable favorable public interest in implementing the recommended plan, locally and in the U.S. Congress.

THE ENTERPRISE-COURIER

206 SOUTH MAIN STREET • POST OFFICE BOX 69 •
CHARLESTON, MISSOURI 63834
(573) 683-3351 • fax (573) 683-2217 • e-mail:
lizanderson@enterprisecourier.com

November 26, 2001

Col. Jack Scherer
Memphis District Engineer
U. S. Army Corps of Engineers
B-202 Clifford Davis Federal Building
Memphis, Tennessee

Dear Col. Scherer,

Thank you for this opportunity to comment on the merits of the St. Johns Bayou-New Madrid Floodway flood control project. The Memphis District has done an extraordinary job on the new Draft Supplemental Environmental Impact Statement. (The "new, Draft". of course, replacing the "Final" document that, was on the boards a year ago.)

What has happened during the past three years with this project is very similar to what has been occurring over the past ten years, or so, with the Missouri River Master Manual. (Although on a much smaller scale). The "environmentalists" have thrown up every roadblock they could think of, using whatever tactics were handy, however dishonorable breaking one's word and telling falsehoods are in today's world. We had an agreement with everyone in the environmental community 15 years ago, everyone was in accord. The complete, and very much larger St. Johns Bayou-New Madrid Floodway flood control project was to be constructed, with [many of the ditches to have 200-foot bottom widths, and the primary mitigation for the project was to be the 2,500 acres in the Ten-Mile Pond area. There were also to be around 4,500 acres of land flooded during the winter for waterfowl.

Then General Phillip Anderson made an agreement with the U.S. Fish and Wildlife Service's regional person for an unprecedented 9,557 acres of mitigation somewhere in the region. They BOTH agreed on that number to move the project forward. In the meantime, only one ditch is now to be cleaned out and it shrunk to 120-feet in bottom width, with the ditch to be cleaned from only one side. Plus it now is supposed to have trees planted ON BOTH SIDES OF THE DITCH. The agreement was also made to allow more than 6,100 acres of land to be flooded in the winter for waterfowl along with more than 700 acres to be devoted to shorebirds. And don't forget the mussels! Avoid them in the ditch. Move them from the ditch. Place them elsewhere and monitor them for ten years.

Now, apparently, even all that isn't enough to mitigate this project. Even with the prior agreement between the Corps and Fish and Wildlife Service, the solid agreement they made, now we hear that they don't think the 9,500+ acres is enough. They want 12,000 acres.

And in addition to all of the avoid and minimize features in the plan approved last year. which have cut back on the size of the original project the Memphis District has added another, brand new "environmental enhancement" feature that will take up still another 1,000 acres or so along the ditches belonging to Consolidated Drainage District within the floodway. Ditches that are not even involved in the authorized project.

Enough is enough. In fact, it's too much.]

M-96

1

1. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 31.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.

Col. Scherer. The Waterways Experiment Station (WES) completed a scientific analysis of the mitigation required for this project and their first cut was around 3,500 acres, using data approved by the Fish and Wildlife Service and Environmental Protection Agency. After those people objected again when the results with their data didn't suit them, WES revised their estimate to around 6,500 acres. That is a good, scientifically sound -- if already elevated -- number, and we suggest that is the number of acres of mitigation that should go along with this project, not 9,557, and certainly not 12,000 acres.

We do not think the new environmental enhancement feature that appeared very suddenly in the draft copy will be supported by local people, but if that is pursued by the Corps, it MUST be from a willing seller vantage point only. No condemnation. No taking without just compensation.

MITIGATION

As far as the specific mitigation to be completed with the project, we have several priorities:

No. 1: The Bogle Woods adjacent to Ten-Mile Pond. This is part of the original package, is an extremely valuable, existing bottomland hardwood forest, and would add greatly to the Missouri Department of Conservation's property at the Conservation Area. We understand it can be included in the mitigation package if MDC requests it. They need to do so.

No. 2: Land adjacent to Big Oak Tree State Park would help to protect the existing forest there and would be a welcome addition, as long as the landowners are willing to sell.

No. 3: Land in the Eagles Nest area that will be flooded late in the year no matter what elevation you start or stop pumping the pumps should be included in the mitigation. Again, if the landowners are willing to sell it.

No. 4: Land at Donaldson Point State Forest could be managed (with the addition of a small levee) for fisheries to provide a backwater spawning area. The same is true around Island No. 8. Small levees strategically placed around many borrow pits or blue holes in and around this county would keep them from drying up and would add -- greatly -- to the fisheries habitat in the area.

No. 5: Black Cypress owned by the Little River Drainage District would be a tremendous asset to all of Southeast Missouri and the varmits it protects.

START/STOP PUMP ELEVATIONS

The start pump elevation for the pumps on the New Madrid side of the project during the growing season should be no higher than 282.5. and they should hold to that schedule from February 1 through November, with water impounded for ducks between November through January, up to elevation 284.4. This gives the growers the most planting, flexibility and the greatest benefit, while providing excellent winter habitat for waterfowl -- over 2,000 more acres inundated during the winter than previously planned and agreed upon, due to the three-foot higher start pump elevation granted during negotiations by the St. Johns Levee and Drainage District.

We strongly disagree with the 288 start pump elevation every third year because so much additional land would be flooded.

LEVEECLOSURE

The only levee closure that makes any sense is the original 1,500-foot gap location. The others are so much longer, they directly impact on many more wetlands than the 12 acres of wetlands associated with the 1,500-foot gap closure.

Thank you again for this opportunity to comment on the Draft SEIS, Col. Scherer. We look forward to getting the project back under construction next year.

Regards,

Liz Anderson

Editor:

The East Prairie Eagle

The Enterprise-Courier, Charleston, MO

2

2. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan.

3

3. The Corps, in coordination with various regulatory and resource agencies, developed such measures in order to lessen project impacts to various natural resources, including project area water quality, fisheries, wildlife, and wetlands. The Corps believes the currently proposed mitigation plan as well as the avoid and minimize measures are appropriate for implementation of the recommended plan.

4

4. Please refer to Response #1.

WEBSTER GROVES NATURE STUDY SOCIETY

January 2, 2002

By email to Mr. Shawn Phillips (Ronald.S.Phillips@MVM02.USACE.ARMY.MIL) and by Regular Mail

Colonel Jack V. Scherer, District Engineer
U.S. Army Corps of Engineers
ATTN: CEMVM-PM-E
Clifford Davis Federal Building
167 North Main Street, B-202
Memphis, TN 38103-1894

Re: St. Johns Basin & New Madrid Floodway
Draft Revised Supplemental Environmental Impact Study (DRSEIS)

Dear Colonel Scherer:

The Webster Groves Nature Study Society (WGNSS) is **opposed** to the proposed project known as the St. Johns Basin & New Madrid Floodway Project, for the reasons set forth below. We urge the Corps of Engineers to **cancel the proposed project**. WGNSS is an organization of approximately 400 members in the St. Louis, Missouri area.

The proposed project would destroy thousands of acres of wetlands in Missouri in the Lower Mississippi River flood plain, would destroy the last remnant of bottomland hardwood forest in southeastern Missouri, and would significantly impact many species of wildlife, including mammals, amphibians, reptiles, fish, and birds, many of which are already stressed by extensive habitat loss. The proposed project would eliminate thousands of acres of critically important habitat. These losses are unacceptable.

I. LOSS OF WETLANDS

[Over 18,000 acres of existing wetlands would be impacted by the proposed reduction of backwater flooding to both the St. Johns Bayou Basin and the New Madrid Floodway. (DRSEIS, p. S-1).] [But much more is at stake: over 130,000 acres of flood plain would be impacted. "The project would reduce the duration and frequency of Mississippi River backwater and St. Johns Basin headwater flooding on a total of 55,000 acres in the St. Johns Bayou Basin and 75,078 acres in the New Madrid Floodway." (S-3).] [These impacts are enormous in terms of the wildlife that depends on these 130,000 acres for breeding, migrating and wintering habitats. The elimination of such a vast amount of wetlands and other flood plain acreage is unacceptable.]

II. LOSS OF BOTTOMLAND HARDWOOD FOREST

Ninety-six percent of the original forest covering the southeastern lowlands of Missouri have already been destroyed. (DRSEIS, p.22). Of the remaining forest, 20,000 acres are located in the St. Johns Bayou Basin and 10,000 acres in the New Madrid Floodway, including Big Oak Tree State Park and other conservation areas. It is critical that the remaining flood plain forest be preserved to maintain the project area's biodiversity and to prevent further habitat loss for the wildlife that utilizes the project area, whether for breeding, migratory, or winter purposes.

General. Refer to DOI/USFWS Responses 2, 7, 25 and others.

86-W

- 1. Refer to DOI/USFWS Response #2.
- 2. Refer to WGNSS Response #1.
- 3. Please refer to Tables 4-1 and 4-2 in the RSEIS. There is not an "elimination" of vast amounts of wetlands. But, rather, a reduction in inundation on 2,016 acres in the St. Johns Basin and 10,239 acres in the New Madrid Floodway. Substantial mitigation is proposed to mitigate for this reduction in inundation. Also, refer to WGNSS Response #2 and DOI/USFWS Responses #7 and #8.
- 4. Refer to WGNSS Response #3 and DOI/USFWS Response #110.

III INTACT ON MIGRATORY, BREEDING AND WINTERING BIRD SPECIES

As noted in the DRSEIS, hundreds of water-dependent and terrestrial bird species use the diverse habitats of the project area, both wetlands and bottomland forest. (p. 28). Of those hundreds of bird species, the interior Least Tern is endangered and the Bald Eagle is threatened. However, most bird species have experienced dramatic population declines and these declines should also be noted, along with the plight of the birds listed under the Endangered Species Act.

The problem of bird population decline has become so critical that the North American Bird Conservation Initiative (NABCI) was launched to find solutions to stop further population decreases, which jeopardize the very existence of many species, including some of our most beloved songbirds. NABCI is aimed at stemming the decline of waterfowl, shorebirds, wading birds, grassland birds, and Neotropical migrants. In Missouri, the effort, known as Missouri Bird Conservation Initiative, or MoBCI, is spearheaded by the Missouri Department of Conservation.

Hundreds of bird species found in North America utilize the project area, both for breeding and in migration, since the project area lies along the Mississippi Flyway, an important migratory bird route. These species include waterfowl, shorebirds, raptors, woodpeckers, and Neotropical migrants.

Neotropical migrant species include warblers, orioles, tanagers, vireos, flycatchers, thrushes, and blackbirds, and include some of most well-known summer songbirds such as Baltimore Oriole, Indigo Bunting, Yellow Warbler, Red-eyed Vireo, Wood Thrush and Scarlet Tanager. Neotropical migrant bird species have suffered population declines between 50 and 90% in the last 30 years and much of that population decline has been caused by habitat loss.

Bachman's Warbler, formerly found in the lowlying areas of southeastern Missouri was extirpated from Missouri by 1948 and was declared extinct in the late 1980s. The primary reason for its demise was habitat loss - the drainage, destruction and conversion of the wetlands and flood plain where it bred.

The Cerulean Warbler, having lost 90% of its population in the Midwest, is teetering on the brink of being extirpated from much of its range, including Missouri. Once a common summer resident in the early 1900s, its population has declined since then due to the destruction of its riparian habitat and the fragmentation of the forests where it breeds. The Cerulean Warbler is the subject of a Petition to the U.S. Fish and Wildlife Service to be listed as threatened under the Endangered Species Act. That petition is pending. The Cerulean Warbler would be greatly impacted if the proposed project were implemented.

Waterfowl, wading birds and shorebirds would also be impacted. The impacts to waterfowl are noted on p. 28-29 of the DRSEIS:

During migrations and overwinters, the St. Johns Bayou Basin and the New Madrid Floodway are important areas for hundreds of thousands of dabbling ducks (i.e. mallard, gadwall, green and blue-winged teal, pintail, widgeon, shoveler, and black duck), coots and geese.... Diving ducks, such as lesser scaup, ring-neck and canvasback, use the deeper waters of the project area... Wetlands of the project area, particularly BLH, are important to wintering waterfowl.

Shorebirds would also be significantly impacted by the loss of 130,000 acres of flood plain. Shorebirds migrate thousands of miles, from Canada to South America, and need to find suitable habitat in which to rest and feed throughout their journey. However, that habitat is rapidly disappearing as wetlands are being drained, destroyed and converted at an alarming rate in North America.

5. Most all of the birds mentioned in this section will benefit due to the substantial amount of reforestation that will occur with the mitigation plan. Reforestation of 8,375 acres will more than double the bottomland hardwoods of the project area, the habitat on which so many of the species depend. Additionally, the additional feature of providing 64 miles of riparian buffers/corridors in the New Madrid Floodway will significantly improve bird habitat. Refer to WGNSS Response #3 and DOI/USFWS Responses #28, #72, #75, and #86. Additionally, note that the project area is an important resource for the waterfowl, and that is the reason why the authorized project provided for allowing 4,900 acres of water to be impounded during the migratory season. The Corps increased this impoundment area to 6,450 acres with the recommended plan. The ability to hold water on the lower floodway during years when backwater is not on the floodway, as well as allowing backwater during high river stage years during the migratory season is a tremendous benefit to waterfowl that this project will create. Please also note that Swampeast Ducks Unlimited Chapter has in the past voiced that this project should be implemented immediately for the betterment of migratory waterfowl.

6. The 130,000 acres to which you refer is the amount of lands that would be protected from flooding with a 30 plus year flood event (see RSEIS Table S-1). The Corps proposes restrictive easements to manage herbaceous lands for shorebirds in accordance with recommendations of the USFWS to fully mitigate shorebird losses. Refer to WGNSS Response #5.

M-99

Regarding the federally listed interior Least Tern, there are 4 colonies near the project area. The physical size of the proposed project is so vast and the impacts so broad that it is inevitable that a project of this magnitude would impact the interior Least Tern populations and would inhibit their breeding success.

7

7. When the interior population of the least tern was proposed as endangered in 1984, the USFWS indicated that the entire interior population was estimated at 1,250 adults. Also, their range on the lower Mississippi River was thought to be only from Cairo, IL, to Osceola, AR, with 650 adults in the population. Surveys by the Corps from 1986 through 1989 revealed 2,000 to 2,350 adult least terns on 570 miles of river from Cape Girardeau, MO to Greenville, MS. The 1990 Recovery Plan stated that, "Current number of adult birds (2,200-2,500) on the Lower Mississippi River will remain stable for the next ten years." The Recovery Plan further stated that, "Essential breeding habitat...will be protected, enhanced, and restored."

Population surveys along this route from 1990 through 2001 revealed population counts greater than 5,000 for 7 of those years, and greater than 6,100 for 4 of those years. The 1995 survey reported 6,971 adult least terns in the lower Mississippi River. This high population far exceeds the Recovery Plan goal. According to a USFWS survey summary report, the surveys by the Corps reveal that about 75% of the total interior least tern population is found in the lower Mississippi River. Thus it can be concluded from these survey numbers that a healthy and stable least tern population exists in the lower Mississippi River.

Dike construction has created many sandbars between the dikes and many nesting colonies are located on these sandbars. The extent to which these sandbars are attaching to the riverbank thereby reducing tern habitat (due to increased predation) is not known but the processes of dike field terrestrialization are well underway at several least tern colony sites in the lower Mississippi River. A Biological Assessment (BA) of dike construction and channel improvement features for the lower Mississippi River by the Corps of Engineers concluded that existing sandbars would not become completely stabilized. Existing sandbars will continue to change vertically and laterally or be eroded away and new ones formed, although not to the degree that was found in the historic river. The river will continue to make vertical adjustments in slope and channel morphology in response to local and long-term system changes and hydrologic cycles and undergo limited meandering in reaches where the riverbanks have not been stabilized. Since dikes are the major influence in habitat formation, and this project does not influence the positioning of dike fields, it can be concluded that the St. Johns Bayou and New Madrid Floodway project will not affect least tern nesting or resting habitat in the Mississippi River.

The report the commenter cites by Dr. Dugger dealt only with several sand bars within the Missouri section of the river. Neither Dr. Dugger's study, nor others, looked at the entire breeding range and population. To fully assess impacts of the St. Johns project, one must look at the entire least tern population over the entire 570 mile breeding range on the lower river. One can not say, nor infer, that reducing the numbers of forage fish that periodically enter the Mississippi River near three local least tern nesting sandbars downstream from the project site will result in significant negative impacts when the data do not support this conclusion. Also, the additional gate operations proposed in this draft SEIS could provide for ponded water in low water years up until May 15 every year. Thus providing a potential fishery rearing area, and subsequent forage area for the migratory terns, that would otherwise not be available in the project area in low water years.

The BA presented data that the frequent 40 foot difference between high and low river stages maintains many areas ~~thousands~~ of large, isolated, bare sandbar habitat that is very conducive to least tern nesting. The BA also concluded that more nesting habitat potentially exists than what is actually used by least terns. In addition, no critical nesting habitat has been determined by the USFWS. Therefore one can ~~cannot~~ conclude that sandbars are not rare nesting habitat for the interior least tern on the lower Mississippi River. One of the nearby sandbars of concern has actually significantly increased in size after the dike was installed.

The dense population of small, juvenile fish that occur in the New Madrid Floodway do enter the Mississippi River and provide easy prey for the least terns using the three nearby nesting colony sites. However, this does not occur every year. There is no drastic or critical decline in overall least tern population numbers during years when the Floodway is not inundated. Spring fishery data collected from the Floodway specifically for the St. Johns project, revealed that gizzard shad comprise the vast majority of juvenile fish exiting the Floodway with the spring floodwaters. Gizzard shad are mobile and found in the Mississippi River by the millions, so it reasonable to conclude that any slight reduction in juvenile gizzard shad numbers at one tributary point in the river system will have minimal impact on the entire least tern population. It should be noted that

the three most recent population survey numbers were 6,000 or more. These were years when no spring inundation occurred in the Floodway.

Least terns fly 2.5 miles or more from the nest to forage in different river habitats ranging from calm backwater chutes to swifter currents along the outside bend reverted river bank. They are opportunistic feeders and will fly to wherever foraging is most productive. Least tern do not appear to be species specific with regard to their prey. About 12 different fish species have been found on the sand at least tern nesting sandbars during Corps surveys. The vast majority of fish found were gizzard shad. The two most important criteria for prey appeared to be the size of the prey and its ease of capture. If receding floodwaters coming out of the Floodway provide abundant juvenile fish that are closer to the three nearby nesting colonies, the terns will fish there. If not, they will forage at greater distances. Or they could forage within the ponded reaches in the bottom of the Floodway during low river stage years. Any slight reduction in forage fish in this local reach of the river during low river stage years does not adversely impact the overall least tern population numbers. The three nearby colonies have been used for many years. The least tern has been nesting on the lower Mississippi River for at least 10,000 years. The terns are aware of what specific energy reserves are required for successful nesting. This is illustrated by the recent survey data. This project will not eliminate spring inundation, merely the inundation that is high enough to cause impacts to infrastructure and agriculture. Therefore, the Corps concludes that any reduction of forage fish leaving the Floodway will not adversely impact the overall least tern population.

The isolated nesting sandbars, great distances between nests and the water, and the lack of cover, preclude most predation on least terns. Predation occurs primarily from great blue heron, great horned owl, Mississippi kite, and occasionally coyote. Predation on least tern young does not dramatically increase on the three nearby colony sandbars during those low water years when forage fish leaving the Floodway are reduced or non-existent, and the adult terns must fly a greater distance to forage. However, should this occur, the overall population would likely recover this year-class at these colonies the next time the Floodway is inundated. It must be pointed out that the least tern can live 12 or more years, and a slight year-class reduction one year is recovered in another year. Moreover, the Mississippi River kills more least tern chicks and adversely affects the entire population whenever a river rise inundates nesting colonies than what could occur from a slight reduction in forage fish entering the river from a nearby stream during high river stages.

Summarizing, one can not conclude that any reduction in forage fish leaving the Floodway will leave the colony so vulnerable that any loss in that year-class will significantly adversely impact the overall least tern population in the lower Mississippi River. The population survey data for the past 16 years do not support this conclusion.

The threatened Bald Eagle not only winters in the project area but also nests there. Again, the proposed project would so alter the project area that it would inevitably impact the availability of habitat and food source for this threatened species.

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8. Section 5.8.2 of the RSEIS iterates the USFWS opinion that potentially two eagles might be incidentally taken as a result of project implementation. USFWS has recommended mitigation measures that would serve to reduce this potential, and the Corps is fully committed to adhering to that agency's guidance to the greatest extent practicable.

Also of concern is the threat to specific public lands located in the project area such as Big Oak Tree State Park and Missouri Department of Conservation areas. The public policy of our state authorizes Missouri DNR and MDC to set aside land for public ownership, not only for the protection of wildlife but also for recreational purposes.

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9. Refer to DOI/USFWS Response #110.

The proposed project would interfere with Missouri's ability to decide for itself how to best manage its public lands.

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10. Measures are proposed to help MDNR manage Big Oak Tree State Park. The appropriate resource agency would have much control over management of mitigation lands and will have some influence over management of lands to benefit waterfowl, shorebirds, and terrestrial wildlife. The local levee district will retain the ability to prevent major flood events from destroying crops, roads and other infrastructure

IV CONCLUSION

We cannot afford to lose the thousands of acres of wetlands, flood plain and bottomland hardwood forest that would be destroyed by the proposed project. Many species of wildlife, including birds, depend upon this habitat for breeding and for migration. The Mississippi Flyway is an important migratory corridor for waterfowl, shorebirds, wading birds,

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11. Impacts to wetlands have been fully considered and bottomland hardwoods, in particular, are not destroyed but more than doubled as a result of proposed mitigation. Therefore, the proposed mitigation plan would generally improve habitat for birds over existing conditions. Refer to

grassland birds, and Neotropical migrants. Bird populations are declining at an alarming rate, so severe that some species may become extinct in this century. Habitat loss is a primary reason for the dramatic and critical bird population decline.

WGNS Response 3.

The Webster Groves Nature Study Society urges the Corps of Engineers to cancel this ill-conceived proposed project.

Thank you for considering our comments. Please include them in the official public record of this matter.

Very truly yours,

Yvonne Homeyer, Conservation Chairperson
Webster Groves Nature Study Society
1508 Oriole Lane
St. Louis, Mo. 63144

cc: U.S. Senator Jean Carnahan
U.S. Senator Kit Bond
Governor Bob Holden
Charles M. Scott, U.S. Fish and Wildlife Service
Stephen Mahfood, Missouri Department of Natural Resources
Jerry Conley, Missouri Department of Conservation

Dec. 12, 2001

I am writing to express my opposition to the Corps of Engineers plan to build levees that will dry up an estimated 130,000 acres of land the Missouri Bootheel area and St. Johns Bayou.

We need more wetlands, not less.

We need more areas where natural flooding relieves pressure from our canalized Mississippi River.

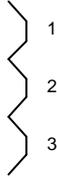
We need less of government programs that seek to manipulate nature for the benefit of a wealthy few.

We all know that what wetlands remain in the Bootheel area are mere remnants of what once existed, remnants that shelter species of bird, animal, and aquatic life clinging to existence in a habitat crucial to them.

I urge you to abandon this project once and for all.

Sincerely,

Jean Blackwood
6031 CR 105
Carthage, MO 64836



1. The 130,000 acres to which you refer would be the amount of area protected from a 30 plus year flood event. Refer to DOI/USFWS Response #2.
2. Refer to MRBA Response #10.
3. The project will help a large number of people who live and work in both basins. The Corps has proposed significant measures to compensate for impacts to the environment.

Wendell Choate
15695 South Highway 77
East Prairie, MO 63845
(573) 649-2311

December 14,2001

Colonel Sherer, District Engineer
Memphis District Corps of Engineers
ATTN: CEMVM-PM-E
1678 North Main Street, B-202
Memphis, TN 38103-1894

Dear Colonel Sherer,

I only partially agree with the final Supplemental Environmental Impact Statement (FSEIS), Flood Control, Mississippi River & Tributaries St. Johns Bayou and New Madrid Floodway. The attached statements overwhelmingly favor the completion of the front line levee.

It should be made clear that this project is not for drainage. This is for the completion of a levee system initiated in 1911-1915 by the St Johns Levee and Drainage District and later taken over by the Corps in 1927. The completion of this levee (closure) will prevent periodic flooding of approximately 36,000 acres of land. Most of this area is developed. There will be no further commercial development whether this levee system is completed or not.

No mention of benefits to wild life has been made. Many thousands of acres of woodland are located adjacent to the Floodway outside the front line levee. This is the home of deer, turkey, rabbits and many other species. The completion of the levee system will provide a safe haven for all these wild animals during high river stages.

Colonel Sherer, for over fifty years, as a landowner, levee board member, and avid sportsman, I have worked to secure the completion of the front line levee. Will it ever be completed? At eighty -two years of age I would at least like to know in my lifetime if this project will become reality. It is evident professional conservationist cannot be satisfied. Enough is enough. Advertise for bids so construction can begin on this project, and let the courts decide our fate.

I urge the completion of this project as soon as possible.

Sincerely

Wendell Choate

The Corps appreciates your interest in the project and thanks you for your letter.

M-104

Troy Gordon
9705 N Rt. E
Harrisburg, MO 65205

gordonm@missouri.edu

December 17, 2001

Commander
Memphis District
U.S. Army Corps of Engineers
ATTN: CEMVM-PM-E
167 North Main Street, B-202
Memphis, TN 38103-1894

StJohns@mvm02.usace.army.mil

Comments on the St. Johns Bayou and New Madrid Floodway Flood Control Project

I am opposed to the St. Johns Bayou and New Madrid Floodway flood control project. This project would destroy many acres of wetlands, and seems to only benefit a few residents of the area at a tremendous expense to the environment and to U.S. taxpayers. Elsewhere in the United States, U.S. taxpayers are paying for projects that mitigate prior projects which destroyed wetlands. By eliminating this project now, we can eliminate the need to mitigate for this project many years from now!

[It is true that the wetland areas in the St. Johns Bayou and New Madrid Floodway area would not be destroyed directly by this project, as the description points out. However, the wetland areas would be denied their water source (back flooding through the current levee gap), and as a result, would not longer have the wetland values.]

[Additionally, if this project were to proceed, it would encourage the clearing and farming of many additional acres of land.]

[The EIS must take into account the consequences of the project, in addition to the actual damage done by the project and these consequences must be tallied as wetland losses.]

The New Madrid Floodway is exactly that, a floodway. It was constructed to allow the levee to be blown at the upstream end, allowing flooding of that area to protect other areas, including towns and urban areas along the Mississippi River. If this project proceeds, the resulting investment in the area will make it politically impossible to ever use the floodway as it is intended. The end result is an increased risk of flooding to towns and urban areas along the Mississippi River. Will the U.S. Army Corps of Engineers next propose a project to build or increase levees to protect these areas? It seems to be to be a self fulfilling project to ensure the employees of the U.S. Army Corps of Engineers will always have jobs-again at the expense of U.S. taxpayers and the wildlife of our nation. Enough is enough! This project should stop now.

The landowners who own land in the area purchased that land when the area was not protected from flooding. I am not sympathetic to an argument giving them flood protection now. While I certainly can't blame them for wanting the government to take care of them at some one else's expense, I don't want to be the one paying for it though my (or anyone else's) taxes.

By putting a pump station at the bottom of St. Johns Bayou and on the New Madrid floodway, there will be an ongoing need for funds to pay for the cost of the pumping. Who is going to pay these costs? Will the federal government (i.e. taxpayers) pay these costs?

- 2 1 1. Refer to DOI/USFWS Response #2 and MRBA Responses #18 and #22.
- 2 1 2. Mitigation will be conducted concurrently with project implementation. Refer to DOI/USFWS #2.
- 3 3 3. Refer to DOI/USFWS Responses #2, #7, and #8, and EDF Responses #5, #35, #37, and #38.
- 4 4 4. Similar woodlands in the upper floodway with similar hydrology have not been cleared. Further, regulatory controls are in place to discourage clearing. Refer to DOI/USFWS Response #26.
- 5 5 5. Concur, refer to DOI/USFWS Response #2.
- 6 6 6. Congress, at the request of local interests, authorized this project and will have to fund its construction. There is nothing contained in this project, nor contained in any authority for this project, that changes the authority to operate the floodway in the event of a major flood. Other than some minor timing modifications that may be needed, the operation plan now will remain in place after any closure levee is built. The President of the Mississippi River Commission will still have the authority under certain legal conditions to operate the floodway. Refer also to MRBA Response #10.
- 7 7 7. The St. Johns Levee and Drainage District is responsible for the operation of both the pumping stations. The representative of the district is Mr. Lynn Bock of New Madrid Missouri.

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M-106

going to pay these costs? Will the federal government (i.e., taxpayers) pay these costs? Will the local drainage district?

The drainage district has not been able to raise the money to do the original work planned. Are they going to be able to pay any ongoing maintenance funding?

Has this cost been factored into the cost benefit analysis?

Finally, the wildlife costs of this project are staggering. The waters leaving the New Madrid Floodway serve as a breeding area for many of the Mississippi River fish. Fish leave the floodway in great numbers. The area benefits the fish of the river, and provide recreation to many people who fish in the area and on the Mississippi River.

It further provides a feeding area for Least Terns and terns have been documented feeding in this area. All this would be destroyed by this project.

While some attempts will be made to mitigate this under this RSEIS, the design for them has not been proven and it will never be as good as the fisheries resource as it currently exists.

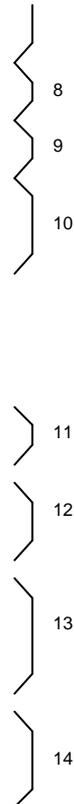
Additionally, efforts to mitigate the damage to local mussel populations by relocating mussel beds are unlikely to work. The areas where the mussel beds are proposed have different water quality conditions. While some species may be able to relocate, it is highly doubtful all species will be able to survive the attempt. Once again, attempts to mitigate are going to be far less successful than just not allowing the project to proceed in the first place.

I have visited this area a number of times. I have seen the large numbers of birds (herons, egrets, sandpipers, etc.), which use this area when water levels allow. It is a travesty to propose destroying this, and even worse to destroy it using taxpayer's money. I ask that you reject this proposal and adopt either the Without Project alternative, or the Ring Levee Around East Prairie alternative.

Thank you for your consideration of my comments.

Sincerely,

Troy Gordon



- 8. The drainage district has agreed through a Project Cooperative Agreement (PCA August 18, 1997, page 6, paragraph C) to be responsible for operating the two pumping stations.
- 9. Yes, this operational cost is included in the economic analysis.
- 10. Dr. Robert Sheehan (Spring 1998) performed sampling of the outflow from Mud Ditch at the bottom of the floodway and found predominantly shad leaving the floodway. In fact, out of 2,524 young of year sampled in the floodway, 1,921 of them were gizzard shad. That's over 76% of all the young of year population. These fish, along with all the other species collected, will continue to use the floodway during the spring spawning and subsequent rearing period. This would be even more so with the alternatives that call for gate management that allows backwater a higher access (from 282.5 to 284.4 feet) on the floodway. There will also be improved spawning and rearing habitat with up to 8,375 acres of cleared land re-established as bottomland hardwood in the lower floodway.
- 11. The project would have minimal impact on least terns. Please refer to WGNSS Response #7.
- 12. Mitigation measures are proposed, based on recommendations from USFWS, that the Corps believes will compensate for significant fishery impacts. The value of frequently flooded forestlands to fish has been well documented. Also, please refer to DOI/USFWS Responses #7, #8, and #15.
- 13. The mitigation plan for mussels has been developed in accordance with the USFWS recommendation. Reference Appendix L, Section 8.5 f or USFWS recommendations. The Corps deems this mitigation adequate. Refer also to EDF Response #20.
- 14. Measures to fully mitigate project impacts to shorebirds have been recommended in accordance with guidance provided by the USFWS. Also, please refer to WGNSS Response #5.

November 26, 2001

Welcome to the U.S. Army Corps of Engineers and everyone in attendance tonight. I'm Marty Hutcheson, my family and I live and work in East Prairie. It is my hometown and my home. We have an interest and desire to see the completion of the St. Johns Bayou-New Madrid Floodway flood control: I repeat, FLOOD CONTROL PROJECT: "NOT DRAINAGE", as some would have us believe, be continued and completed. I have been on the East Prairie City Council, served as Mayor, served as the Second District Commissioner to friends and families in the south end of Mississippi County, I served several years on the East Prairie City and the Mississippi County Industrial Development Authorities and two terms on the Mississippi County Port Authority. I can speak with confidence and from 10 years experience within the above public offices and appointments. When I tell you, many individuals, several in this room and some not with us any longer; have worked without pay, on shoestring budgets, as volunteers and supporters to bring new industry, payrolls, job opportunities, improvements to family living, housing, and income, which would benefit everyone of us that make Mississippi County or home. This flood control project will help our local economy move into 2002 with a new sales plan for progress in this area, jobs, industrial relocation with security we'll not have disruption of business, commerce, personnel and operations caused by the past flooding. The Southeast section of Missouri is rich in history and naturally productive cropland. It is true farmers plant and grow crops to not only feed their families, but families around the globe. We have fixed and variable cost, depreciable assets, employees, and support various ancillary businesses that have survived in rural areas based on Agriculture Production and efficiencies with scaled up acres and the wonders of new technologies. This economy can only survive these uncertain times by supporting and implementing the levee closure location of Option I the authorized closure of the 1,500 foot gap. This is a man made flood exposure and far removed from a naturally occurring environmental euphoria. Some groups say why should we do a flood control effort that will benefit farmers. Because, Farming-Agricultural Production, planning, organizing, directing, and individual control is what holds the fabric of this Ag industry that makes outstate Missouri rural America the base of our economy. Yes, commodities are cheap and you benefit, as the consumer, when you get more from us for less every time an end user makes a buy. This low consumer cost is related to infrastructure, support and the wisdom and security of the producers to avoid and minimize the consequence of flood damage. This makes the start pump elevation and the dates used most critical.

The avoid and minimize elevation level of 282.5 could be a necessary evil if the duration does not exceed April 15. The historical evidence of spring rains confined with level full drainage ditches to our only outlet would be another man made flood event. We would still be cut off by flooding.

I question the need for 9,500 acres of mitigation lands. It seems wasteful and arrogant when only minimal acres will be disturbed and or displaced. The 6,500 acre Kilgore plan is still excessive, but considering if we use only willing sellers, I'm opposed to the thought of court authority to condemn land. This number may be feasible considering the land impacted by the waterfowl ponding options of 282.5, 284.4. Some areas that have been mentioned include the 4,000-5,000 acres at Donaldson Point, the Bogle Woods, the 3MA property adjacent to Big Oak Park and the Black Cypress area in Little River Drainage District. I'm not suggesting we need them all but a combination of these or a part of two or more could easily exceed the required and precieved mitigation plum.

Agricultural producers in this area are environmentally concious. Producers as a group have just neglected to blow their own horn and have not solicited monetary donations from outsiders that need to feel good about themselves. They have planted buffer strips voluntarily and this option should continue. The environmental restoration portion included in this last report is too vague for me to make a determination at this meeting. Agriculture is moving to the areas of least cost production in third world countries. Where the first thing they try to do is increase production, by clearing forest and drainage, dredging projects that will fill the worlds needs by securing any void created by governmental, environmental, and/or economic conditions elsewhere This is very short sided and will do nothing to improve the local economy and/or our quality of life. The response's to do nothing is what we have had for the last 50 years or more and it's not working. It appears to me, after millions of

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- 1. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 3-1.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.
- 2. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan.

dollars and intense professional research this flood control project and the closure could be built out of paper stacked end to end and layered for 1,500 feet. Maybe, this would be environmentally friendly, but then we would need a fourth SEIS or would we need the extra paper?

Thank You, Martin K. Hutcheson

13 December 2001

SUBJECT: Comments of Colonel David K. Holland, US Army (ret) on the October 2001 Draft Report - Revised Supplemental Environmental Impact Statement for the St. John's Basin -Madrid Floodway Project.

TO: Commander, Memphis District, US Army Corps of Engineers
ATTN: CEMVM-PM-E
167 North Main Street, B-202
Memphis, TN 38103-1894

Thank you for giving me yet another opportunity to submit oral and written comments and suggestions regarding the Environmental Impact Statement for the St. John's Basin – New Madrid Floodway Project. It is now the Revised Supplemental (RSEIS) version. Most of my previous comments on the subject of this project are still valid. I attended the Monday evening meeting in East Prairie, MO on 27 November 2001, and was heartened by the comments of my friends at that forum. I hope that your office took note of the many local speakers who spoke for initiation of the project at the 1500 foot levee position. I also hope that you took note of the lack of fortitude on the part of those who have maneuvered and schemed and lied to bring the project to this new iteration. You may also have noted that the one speaker who obviously will seek to block the project had little to say, and what he said was without merit. My written comments and suggestions are submitted herewith.

My regret is that those of us who are closely associated with the project area were not solicited for input until the draft report arrived at our mailing addresses. I feel that an excellent resource was overlooked in the preparation of the report, and that resource comprises many residents of the project area, and some who are closely associated with the area, but must be satisfied with frequent visits to the river counties. At this point in time the names would not matter much. but then are many people in responsible positions who were born and raised in the Floodway and in the St. John's Basin who have intimate knowledge of the project area, of the river, and of the economic and social plight of the counties and communities involved in the project area. Others, although not born in the immediate area, have close contact with the project area and are very knowledgeable of the environment and other important aspects of the need for, and information related to the impact of the project.

I am aware that your office was directed to conduct this study, and the basis for that directive seems obvious. Engineering logic is not to be the guiding factor. The depressed economic and social conditions of the project area are not to be guiding factors. The emotions of a few people and influential media sources, who have used and will continue to use misinformation is what is guiding us in this expensive game. It is a power play in its worst form.

The lives of innocent people who merely want to make a living - to have a better situation for their families - to make the area viable again as a prime agricultural resource - all these are at stake in this end game that I hope is about to be played out. We need a decision to build the closure levee at the most beneficial and cost effective spot, and it is obvious that Option 1 is that place. All the other 'options' are mere subterfuge and obfuscation. Their architects expect to either wear out the Corps and those of us who have been hoping for a successful completion of a relatively small project; or they think that the costs of the additional options and mitigation will skew the cost/benefit ratio to the point that the project will not be considered feasible.

We need the levee closure. We need it now. We sympathize with those in the corps who have had to revisit this again and again. We hope and pray that this is the final draft and we can have a real final report that truly will be final. Thank you again for this opportunity to comment.

Respectfully submitted,

David K. Holland

1

1. The Corps appreciates your interest in the project and thanks you for your letter. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 3-1.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.

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2. Please refer to Response #1.

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13 December 2001

COL David K. Holland. USA (ret)
5 508 Saddlewood Lane
Brentwood, TN 37027
615-373-4891

Formal Comments of COL David K. Holland. US Army (ret), regarding the Draft Report, dated October 2001, Revised Supplemental Environmental Impact Statement for the St. John's Basin – New Madrid Floodway Project.

Thank you for allowing me time to speak on this very important subject and to submit formal written comments/suggestions. We, who are residents or landowners in the Floodway, are honored to have an opportunity to give additional input toward the rapid completion of this vital project. Although the very few public meetings are the only times that our opinion and local expertise has been sought or aired; we will persevere once again to see if we can get our points across. The main point is: **CLOSE THE FLOODWAY AT THE EXTREME LOWER END AND STOP GIVING PRIORITY TO OUTSIDE INTERESTS WHOSE IMPETUS IS EMOTIONAL AND HAS NOTHING TO DO WITH PRACTICALITY AND FACT.**

We are people. People pay taxes. People vote (regrettably, only sometimes). People need a source of livelihood. People are more important than some mussel, slug, weed, or other such item that has been used time and again to impede this project.

This project has taken too long; thus it has come to this sorry state of affairs. It has been studied, and studied, and studied, and, I fear, it has been studied to death. That would be a dual tragedy; we would not get the protection that we need and deserve, and there would be less need for those whose profession is studying.

Surely there is someone with the courage and power to make a simple decision. The Executive Branch of government must have the fortitude to look at the facts that have been developed, examined, costed out, described, published and republished, examined and reexamined, and make the decision to either do the project at the best spot or just kill it and let it die. This constant vacillation on the part of the Federal Government has resulted in a greatly increased cost of the project, many years of lost or damaged crops, and the devastation of the economy and social well-being of the project area.

The keening wails of people who do not live in the area of the proposed project. who do not pay taxes here, who do not contribute to the local society or economy, who are essentially, misguided meddlers. and who seem to value evanescent dreams of Eden more than the fact that people need the food and fiber that is produced in this and other areas. No one whom I know who farms or is associated with farming wants to see the land devastated. Despite all the vitriol that has been printed by distant newspaper; panic has been fomented by illogical writing, and misspeak of the worst sort. I want you to know that our farmers are good stewards of the land and all it supports.

When I was a boy growing up across the river in Kentucky and visiting often here in Missouri, and, later, working on the St. John's Drainage Structure as a surveyor and construction inspector, there were no deer. Now, there are so many deer that crops are damaged, many accidents happen, some of which are serious threats to life and property, and flooding causes other problems for the creatures. Not just deer, but rabbits, quail, raccoons, and other creatures cannot exist in flood waters. They must seek higher and higher land as the waters rise. Some end up on isolated knolls and rises that often become inundated. The creatures that sought relief on these small islands must then swim in search of higher ground or drown. Often, they drown or die of exposure. Even if the small islands are not completely inundated; the creatures often are forced to leave them because of extreme hunger; since the small plots will not support them.

Many creatures seek the seeming safety of the levees only to find that they have been concentrated on these eminencies so the coyotes and other predators have an easy time killing and devouring them. The capricious flooding of an area once rich in wildlife has killed off ground dwelling birds, small game animals, reptiles, and similar creatures. There is no

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schedule for flooding. It just happens. People with 'long memories' seem to remember that the Mississippi River flooded in the late Winter and early Spring, but that was not something one could bet on with any credibility. Sometimes floods came in late Spring, early Summer, and even in early Fall, so man could not bank on the reliability of that sort of event, and the animals, driven by instinct, were often caught with young that were imperiled by the rising waters. All too frequently, they died, and their numbers continued to reduce.

If only some of our opponents could see does with young fawns struggling through chilling waters for some place of sanctuary and where food is available they might learn that wildlife, other than ducks and geese, cannot thrive in flooded areas. If the creatures of the Floodway had the protection of a closed levee system that provided a much lesser amount of danger to their existence; one would find that there would be a sudden and continued increase in numbers and well-being of all the animals mentioned in your study. With the levee closed off at Option I (which should be entitled OPTION ONLY!); there would be ample space and habitat for the care and welfare of same animals, and associated fauna and flora. Wildlife specialists could better predict and manage water resources so that rare species could be introduced into a more amenable habitat with a better chance of survival than is possible in today's unscheduled flooding events.

Now, I would like to mention an item from the study that noted fishing was good in blueholes. That is generally true, but it is also true that the vast majority of blueholes are OUTSIDE the levee, so are not relevant to the problem at hand. Additionally, much print is used to talk about the 'fat pocketbook mussel', the 'sicklefin chub', and the 'sturgeon chub', and other **creatures that do not exist in the Floodway or in the St. John's Basin..** Just taking up space in the study. Just planting a seed of doubt in the mind of the casual reader. Just obfuscation of the worst sort. I don't see any print spent on the alligator, and some of those have been reported as sighted in the river as far up as Cape Girardeau; although I have yet to see one, especially in the project area. No print is given to the lack of grouse, pheasants, etc., either, but, of course, those species do not live in the Floodway. Treat all species the same. If they are found within the project area, discuss them, if not, don't discuss them.

On second thought, the writer of those words has done those of us who are proponents of the project a great favor. We won't have to fight over those species again; because after the exhaustive search - none were found.

I especially liked the strain put on the infamous '**fat pocketbook mussel**' when the study noted that it is 'possible' that it exists on the Missouri side of the Upper Mississippi River. Why not on the Illinois side? Anyway, at last sighting, the Upper Mississippi River starts above Cairo, and is not applicable to the Project area.

I would like for the study group to take some time to study the '**flat pocketbook farmer**' and the '**beleaguered taxpayer**' instead on some creature that does not exit in the Project area. Taxes and farming costs are high, and we need all the help we can get to improve the economic conditions in a low-income and high-unemployment area. One only has to take a cursory look at the commodity market figures to ascertain that the return on our crops is poor, at best.

It would be wonderful if some of the detractors of the Project would come here and help support the community instead of visiting just in time to throw logs in the road of progress. Worse yet, most of those dedicated to damaging the project, have not visited the project area, but blindly take the word of people known to prevaricate in the press. If members of the Missouri Conservation Commission lived in Southeast Missouri instead of the Kansas City/St. Joseph area or in the hills of the east central parts of the State, they might gain some knowledge of the facts concerning the need for the levee closure and head water management.

Unfortunately, our experience in dealing with people from afar, especially from hill country, is that they cannot understand the fragility of flood plain lands. Our ecology is unusual to those who do have not lived and farmed here or under similar circumstances. It takes special knowledge and skill to work with the land to protect it and to use it to its highest and best advantage.

No farmer would ever willfully damage his farm land. It is his livelihood and a source of pride in his profession. The farmer is an eternal optimist. He prepares the sod and plants with the faith that the seeds will sprout, and that they will mature into fruiting plants. He cares for the plants during their life to reduce weeds and damage. He prays that the river will not rise and take away his crop. His practices encourage game animals and birds, and he is a net contributor to the local, State, and Federal economy. He is also barely making a living, but is closely tied to the land and its care by economics and by desire to practice his life mission - to farm and to make an honorable living. Their life is hard enough without uncaring people and a, seemingly, distant government who appear willing to let the farmers of this area continue to suffer; when a small project could alleviate suffering and make the area a good place to live and work, once again.

Those outsiders who profess to love Nature don't seem to be around when the river's backwaters bring in piles of noxious weeds, cans, logs, and other flotsam. They are not around to see people having to deal with vast drifts of trash, trees, jugs, and other waste piled up on the land. All that trash has to be dealt with before a crop can be put in. If it were not removed, the concentrations of messy junk would ruin large areas of field and forest for both man and beast. I would cordially invite those who strive to block the levee closure to spend some quality time with some farmers and with their eyes wide open so that they could get a better understanding of the need for the closure.

It is a sad fact that many children, and I fear, grownups now think that:

- milk originates in paper cartons and is found in convenience stores,
- food is found in cans or in the produce sections of the same groceries,
- bambi is a saint,
- trees are to be 'worshipped'; not conserved, cut, used to shelter mankind,
- farmers are intent on destroying the very land that provides their living.

I really doubt if the average American citizen gives any thought to where food comes from, nor how it has been produced, nor how farmers care for the land. I have had ample evidence that we are becoming a Nation of Druids; since 'tree worship' seems rampant. I believe in planting trees, in caring for them, and for using the forest products to make our Nation stronger, a more comfortable place in which to live, and for renewing the forest as needed. If a tree is allowed to become very old it becomes less valuable and, most often, it will not allow young and vigorous timber to grow in its shade or root zone. Trees are a gift of God – not gods! The same can be said for wild life. It has its place, but man should mangle and work with nature, not vice versa.

Now, much has been said about Big Oak Tree State Park. That is an important part of the local area. The big problem with Big Oak is that no one seems to know what the 'normal' water or flood times are. Actually, there may not be a short-term 'normal' periodicity to the flooding of the park. Perhaps its current condition is just a phase of a very long fluctuation of water, climate, and other variables. Just as lakes and oxbows are created and then, over time, silt up and become swamps; then dry land. Perhaps the perceived change in Big Oak to a more upland ecology is actually a link in the normal chain of events that will lead the area to become an upland type of forest. The levee closure project will not have a great impact on the current environment of Big Oak Tree State Park.

Those who wring their hands at the 'loss of champion trees' must remember that Joe Louis, Barney Oldfield, Red Grange, and other champions of old have had their time on the stage of history and have gone on to their reward. The same applies to old trees. It is natural for old trees to become more prone to insect damage, rot, wind damage, etc. Eventually, they, like us, grow old and die, as did the 'big' oak for which the park was named. Some, again like us, are struck down in the prime of life. They by fire, windstorm, flood, and lightning. Trees are not immortal. They have their time on this globe as do we. I would hope that a learned engineering study would not lean so far toward giving trees and wildlife more value than people who need the assistance of the Corps of Engineers.

The Corps of Engineers has been a strong help in past years, but the need for this project is so that they need to seize some of their past strength and resolve and make the decision to

close the levee at the most economic and logical place, and **that is at the 1500 foot closure point**. To toy with other 'plans' is wasteful and nothing gets done. The levee closure project has been authorized several times, and it has been studied to the most minute detail. Now the time for a logical and practical decision is at hand. I hope and trust that you will select Option 1 as the best and only option and build the closure to protect this area for the economic and social benefits. Don't succumb to those from distant places who are basically playing a power game that will make them feel good that they have been able to stop the Corps of Engineers and who condemn our area to continued economic blight and devastation from uncontrolled flooding events.

I have a concern regarding the manning and operation of the pumping station(s). Will the costs of personnel to man the pumps fall on the local authority, or will the Corps of Engineers hire and manage those people? If it becomes the responsibility of the local authority, who will take that responsibility; since there can be several governmental entities involved. I have not found anything in the study that treats those aspects of the project. There is the possibility that operational personnel would only be needed during flood events, but few people would want to work in such an uncertain situation.

What levels of manning are being considered? What skills will be required? Has the manning been considered? If not, why not? That is potentially a significant part of the Project and its continuing effect on the protected areas. If there are to be two sets of pumps, does that call for two teams of personnel to man the stations around the clock? Despite my sincere desire to see the closure, I am concerned regarding the possible establishment of a new welfare program. In order to man one or two facilities every day and around the clock will take a large number of people. There will have to be a hierarchy and a system to allow personnel to have an advancement possibility. Training, health benefits, vacation times, sick leave, vehicle support, tools, protective devices, etc. will all have to be considered, along with a myriad of other personnel aspects. Is it possible that the pumping stations will be totally automated so that they can be run remotely or by electronic controls? How will those be managed? Checked?

Unlike two other pumping stations in the local area with which I am somewhat familiar, these may take a great deal more hands-on management. The others only run infrequently, and persons employed by the local levee boards for maintenance can do the work. Closely managing water levels, and being on top of flood events in the project area seems to comprise a set of very critical tasks, and it will be more than just opening/closing gates or pushing a button or two on an infrequent basis. Heavy rains or the arrival of large crest on the river will demand almost instant response to rising water levels or dangerous situations can evolve rapidly.

Please enlighten us regarding personnel requirements and operational aspects of the completed project.

Please use the terms "Prehistoric Occupation" and "Prehistoric People" instead of "Native American". All the people I know in the project area are Native Americans, having been born, as was I, in the good old United States of America. I consider your 'politically correct' use of the offensive term as an attempt to identify a certain racial group, and we do not need elements of racism in the document. You also have chose to use the terms "European" and "African" to designate some of the early settlers, which I find to be repugnant. Aren't we all Americans? Why continue the divisiveness? Most of those 'Europeans' and Africans' came from Kentucky, Illinois, Indiana, Tennessee, and other American States. Be proud to be an AMERICAN!

Their culture proved dominant, and they stuck with the land. They were not casual visitors to the land, but they worked very hard under terrible conditions to give us the beautiful land that now comprises the project area.

Take a lead from your 'study' of Reelfoot Lake wherein "Prehistoric" was more properly used to identify early inhabitants who should be more properly hyphenated as "Asiatic-Americans", according to authropologists and others who study those times. Thank you for your consideration of these thoughts.

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3. Such issues will be resolved prior to project implementation.

The newspapers, television, and radio are full of stories about people exerting their 'power' in the gamesmanship of keeping some project or other from being built. Some even go so far as to resort to what is called 'urban terrorism'; although many of their nefarious schemes have been directed toward people who make their living by logging timber. People have been maimed and killed by the actions of these enraged people. They don't seem to know what they are actually accomplishing, but they are out there demonstrating that they have power.

I wonder if we are becoming a nation of Luddites, those misinformed and destructive people in England who were known for rioting and demonstrating against the new power looms that they saw as threatening their hand work. From 1811 to 1816, about the same time that this area was experiencing the devastating earthquakes, the Luddites were active in trying to defeat any form of improvement; because they thought their ideas were correct. Well, we know the outcome of the new textile industry that became one of the bases for England's rise in the Industrial Revolution. Our situation is not as grand as that example, but it is apropos, none-the-less.

We find ourselves on the brink of having relatively assured protection from the river which has severely damaged the economy and social activities of this area for many decades. The mere building of a 1500 foot protective levee with one or two pumping stations to help control water levels within agreed upon parameters has inflamed our modern-day attackers who want to stop this long awaited help for a relatively small area. The area is not huge. We are not talking about the Great Smoky Mountains National Park, nor something like Yellowstone, nor the Grand Canyon. We are not even talking about an area that is home to especially rare species. No, our area is relatively common to all other areas in these reaches of the Mississippi River Delta.

The well studied project has been examined in exquisite detail over and over. The fear that the golden top-minnow will be negatively affected has little basis in fact. The project design allows for a relatively large amount of mitigation land. Those of us who live or have land in this area are somewhat puzzled at the concern for mitigation. Mitigating what? It would seem that the plan to set up almost 10,000 acres for mitigation in relation to the project; to limit some of the needed bank clearing and ditch dredging; and all the other things demanded by the Fish & Wildlife Service and the Missouri Department of Conservation would satisfy the most avid opponent of the project.

We find ourselves, once again in a public meeting to try to salvage the project. As projects go, it is not extremely large, but its effect on the Floodway will be enormous. Game species will burgeon. Fish and other aquatic life will be well accommodated. There may be good habitat developed for the fat pocketbook mussel; although that species has not evidenced itself in the area. Some of the many blueholes, which, in the main, are outside the frontline levee, should be studied as possible habitat and possibly should be considered as candidates for some of the mitigation activities related to our much needed levee closure.

I believe that all of us who are local taxpayers, and those who make their living in the project area are open to all sorts of improvements for wildlife and improvements to the infrastructure and the social/economic well-being of the area. We believe in Mississippi, New Madrid, and Scott Counties. We believe that there can be a minor economic miracle here if we can get the levee closed and gain some control over the backwater that continues to harass us through that 1500 foot oversight. A predictable agricultural area will draw all sort of businesses.

We can look toward producing market products so that city folks can have fresh vegetables from our local area. That might lead to some sort of industry to process and ship produce on a more regular basis. We can look forward to having better selections of crops on land that is protected as the area between Kansas City and St. Joseph, MO is protected, even to the extent of having all the feeder streams there enclosed in protective levees that allow lands to be farmed and that allow homes, barns, factories, roads, etc. to exist in an assured environment.

We would implore the people who have fought this project to a standstill; who have intimidated even the mighty Corps of Engineers; to stand down and let the project proceed.

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- 4. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan. The Corps, in coordination with various regulatory and resource agencies, developed additional measures in order to lessen project impacts to various natural resources, including project area water quality, fisheries, wildlife, and wetlands. The Corps believes the currently proposed mitigation plan as well as the avoid and minimize measures are appropriate for implementation of the recommended plan.

We are tired of wild claims of 'destroying habitat' and 'draining 30-36,000 acres of wet lands' – that have become shrill slogans for those who want to stop any sort of progress it seems.

I wish to take this time to address those who oppose the project. I would be happy to sit down with you and discuss your concerns; although it would seem that the Corps of Engineers and the original study team have mulled over all the real and imagined problems that have been raised. I just want you to not stay in your cities and rail that we are intent on destroying the world. That is the last thing we want to do. All we want is to have some protection from unpredictable flooding; from debris washed in on our land; from lost crops; from economic depression; and from the loss of our most precious resource – our young people who have left the area; because they see that our area is not progressing and there is little promise for the future under the present circumstances.

If the river stage is high and we experience heavy rain, can the proposed pumping station(s) cope with the accumulation? Will we be subject to a great deal of flooding from headwater? In a separate paper, which I discussed briefly with the current Project Manager at the East Prairie meeting in early December, I will make a suggestion regarding inflow/outflow structures and the selection of pumping station(s).

My comment about the recent 'suggestion' regarding 'wildlife corridors' along major and minor ditches was a real jolt to us. You see, we would be greatly and negatively affected by that scheme. Firstly, how would Consolidated Drainage District #1 be able to maintain the ditches if there are trees growing profusely along the ditches? Obviously, they could not clear the banks and

Why are we not progressing? It is simple. We need to have the levee closed at the 1500 foot point and soon. We need the assurance that we can live and work in an area that is not continually threatened by flood.

I think it ironic that three-quarters of the honorable members of the Missouri Department of Conservation are from the Missouri River Valley – Kansas City, Plattsburg, and St. Joseph. All of those fine folks can see the advantages of being protected from floods in the fertile and productive valley of the Missouri River. Why cannot we, in the Lower Mississippi River Valley be afforded the same protection and quality of life? Why does our social and economic future have to be retarded because someone from a far off city has decided that the project might have some effect on wildlife that does not suit that person? Why have we seen newspaper persons print blatant lies about the project and its aims? Why has conjecture overridden fact and truth? I am puzzled by all the invective that this small project has garnered. Why has this small portion of the Lower Mississippi River Delta been singled out to be subjected to damaging floods and attacks from people we don't even know and who have rarely, if ever, visited here.

I am astonished that we have sunk to the level where sound engineering logic is overcome by emotional outbursts and outright falsehoods. When are we going to be able to convince the Corps of Engineers to proceed with the project and to finally give us some protection and peace of mind? Believe me, I am frustrated by the lack of action on the part of our Federal authorities. We cannot blame the local engineer district. The current problem emanated from Washington, DC from a minion of the past administration. Now, with a war being conducted, our project is small potatoes in the overall scheme of things. I wonder if we will ever get the attention of the Office of the Chief of Engineers – even one of his 'action officers'. Perhaps there is a Major up there who might write a favorable paper so we can get the water controlled and can have some hope of a higher quality of life for all who live and labor in the affected counties.

Another aspect of the final project that I would like to discuss is the start and stop pump levels. If your pumps are not properly sized they will not be able to cope with one of our frequent five or six inch rains. Not too infrequently, we experience even larger downpours, and the runoff, in my estimation, will overwhelm pumps that are started too late.

Reelfoot Lake is a good example of that. The people working there, I am told, who are responsible to operate the gates at the spillway must get permission from someone in Atlanta in order to open the gates. When a heavy rain, over three inches, is experienced the

norm is to wait until it is obvious that the lake is rising quickly in response to runoff and direct accumulation, they then call Atlanta, GA to ask for permission to open the gates. By that time the lake has risen more than four to six inches, and the outflow gates will not accommodate enough flow to cope with the accumulated water. The result is that the lake grows out of its normal pool and banks, and damage results to infrastructure and crop land.

The drainage structure of the St. Johns Basin and the Floodway probably are larger, or at least comparable, to the Reelfoot Lake area. Trying to manage the headwaters within a two or three foot parameter is unwise and may be unreasonable. I would suggest that the hydrology experts look again at the consequences of a heavy rain, especially during farming times. I believe that the outflow/inflow structure must be very large, possibly with fifteen or twenty culverts of large bore through the closure levee. Those could cope with a large rain much better than an undersized pump. Of course that depends on the river stage.

If the river stage is high and we experience heavy rain, can the proposed pumping station(s) cope with the accumulation? Will we be subject to a great deal of flooding from headwater? In a separate paper, which I discussed briefly with the current Project Manager at the East Prairie meeting in early December, I will make a suggestion regarding inflow/outflow structures and the selection of pumping station(s).

My comment about the recent 'suggestion' regarding 'wildlife corridors' along major and minor ditches was a real jolt to us. You see, we would be greatly and negatively affected by that scheme. Firstly, how would Consolidated Drainage District #1 be able to maintain the ditches if there are trees growing profusely along the ditches? Obviously, they could not clear the banks and keep obstructions and shoals out of the flow ways with a small forest in the way.

Secondly, how would adjacent landowners/farmers be able to access their lands in order to plant and harvest crops? Three hundred feet of additional land lost on both sides of the ditches would restrict ease of movements and would make for additional debris in time of flood.

We find that suggestion similar to one in the old story wherein a hen and a pig were discussing their farmer who fed and housed them. The hen wanted to do something for Farmer Brown, and stated that they should make him a breakfast of ham and eggs. The pig retorted, "That would be a fine commitment; except for you (the hen) it would be a contribution, but in my case (the pig) it would be a sacrifice!" Since we are blessed with big ditch banks; we would be in the same situation as the pig.

Actually, I don't believe that wildlife corridors are needed. Deer and other creatures wander all over; except when the high backwaters impede their peregrinations. Many people have spoken about herds of deer comprising over two hundred animals have been sighted (and counted) as they were forced out of Big Oak State Park by flood waters. They were reported to have congregated near the park in adjacent fields for a short while, and then headed for the levee and higher ground to the NE. You could ask Mr. Wendall Choate, or Mr. Milus Gary Wallace, or many others who live or work in the vicinity of Bennett's Store – especially Mr. Bennett. Mr. Neal Tinnon could also corroborate those statements.

Wildlife doesn't need more protection – Farmers do!

Finally, in your next final report, please consider using more color on charts; such as the one in Appendix C, page 27, Plate # 1. It is a nice rendition, but I cannot tell what is to be learned from the plate; since everything in the legend is just as black as are all the heavy lines. Consider using color to designate the various things to be demonstrated or use some sort of cross-hatching or similar techniques to better separate the things to be shown by that similar plates.

In closing, I again thank you for the opportunity to comment again on the studies, and to exhort you to make the decision to authorize and build the closure levee. The time for action is long past, and our people need consideration and assistance.

M-116

} 5 5. Noted.

26 Nov 2001

I would like to add my comments on the Revised SEIS of the St. Johns Bayou and New Madrid Floodway Project. I feel that this project has been studied to death and each year people get flooded, People cannot get to work and home, Children are hampered from getting to school ambulances cannot get to people in a timely manner, roads and bridges are closed and damaged so people cannot use them. When are people going to be heard and action be taken? We are talking about a ditch, not a pristine stream!

I strongly believe that Option One, the "Authorized Closure Location" is the only option, it also has the best cost/benefit ratio.

I believe the Avoid and Minimize option of start pumps at 282.5 and stop at 280.0 should be utilized and forget any alternative of flooding every third year. People cannot afford to lose crops every third year. Would you want to give up your salary every third year?

I feel the Mitigation land grab has gotten out of hand. The Project keeps getting reduced in scope and size and the mitigation land only grows. Studies years ago showed that 6500 acres was more than ample.

In closing I feel it is past time to begin this Project. Thank-you for your time.

E.P. "Jack" Moxley, Jr
1206 E. 208th Rd.
Charleston, MO 63834

1

1. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 3-1.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.

2

2. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan.

JIM ROBINSON, JR.
3849 East Highway VV
East Prairie, MO 63845
(573) 649-5858

November 26, 2001

Colonel Sherer, District Engineer
U.S. ARMY CORPS OF ENGINEERS, MEMPHIS
Attn. Environmental and Economic Analysis Branch
1678 N. Main Street, B-202
Memphis, Tennessee 38103-1894

Dear Colonel Sherer:

Let's face facts:

1) Option 1 has been authorized! It has been and is the highest cost benefit ratio and provides the greatest level of protection to our residents. (This has been studied and restudied.)

2) The start pump elevation of 282.5 gives the least impact of farm land and infrastructure. The water basin must be clear of water retention by April 15. We have a plan that has been painstakingly followed by Memphis engineers and local people -- this project is environmentally friendly.

3) Yes, all adverse environmental impacts of this project are more than fully mitigated. In fact, the 6500 acre Kilgore plan s satisfies environmental needs. It is my belief that desirable mitigation sites can be located

We have talked, talked, talked, talked and talked! We have hosted and hosted and hosted persons who are interested in the St. Johns Bayou and New Madrid Floodway flood control project. We have studied and studied and studied.

I URGE YOU TO MOVE NOW TO COMPLETE THE GAP IN THE LEVEE AND FINISH THIS MUCH NEED FLOOD CONTROL PROJECT.

Thank you,

Jim Robinson, Jr.

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1. After thorough analyses of the numerous issues involved with the project, and after extensive coordination with the various regulatory and resource agencies, the Corps has designated Alternative 31.B as the recommended plan because it has the greatest benefit-to-cost ratio and, as a result, is the National Economic Development option.
 2. Based on wetland analyses conducted pursuant to this project, the Corps proposes mitigating 8,375 acres in conjunction with implementation of the recommended plan.

M-118

JOHN G. WAGGENER
RR 2 BOX 2223
LINN CREEK MO 65052

17 December 2001

Mr. David L. Reese
Chief, Environmental & Economic Analysis Branch
Memphis District
U.S. Army Corps of Engineers

Ref: Revised DSEIS, St. Johns Bayou-New Madrid Floodway
Flood Control Project

Dear Mr. Reese,

I write to offer my very strong support for the early execution of the referenced project. First I offer my credentials. I am very familiar with the project and intimately familiar with the area. I was born in Gideon, New Madrid County Missouri in 1925 and at the age of one moved with my family to a farm five miles south of East Prairie, Mississippi County. My family evacuated to Charleston during the great flood of 1927 and moved to Charleston in 1930. I witnessed the building of the Birds Point-New Madrid setback levee. I witnessed the flood of 1937. I enlisted in the U.S. Army in 1943, after high school. I entered the U.S. Military Academy in 1944 and graduated in 1948, being commissioned in the Corps of Engineers. In 1958 I received a master's degree in civil engineering from MIT. Charleston, Mississippi County, Missouri, remained my official residence until my retirement from the Army in 1976. I have continually over the years considered Charleston, Mississippi County, as being my home and still do. I visit there several times each year. My family and I own over 700 acres of farmland in Mississippi County; this land is near Charleston, the referenced project will have no beneficial effect on our farmland. Over the years I have followed with great interest the progress (LACK OF PROGRESS) of the St. Johns Bayou-New Madrid Floodway Flood Control Project, have visited the site and attended meetings concerning the project.

Mr. Reese, this very worthwhile project was authorized by Congress in 1954. The PEOPLE of the area will benefit greatly by EARLY construction and completion of the project. We need to close the gap in the levee EARLY, not LATER. The livelihood and the quality of life of MANY FINE PEOPLE are greatly harmed by the fact that 47 years after the Congress of the United States of America authorized this very important project the United States Government, the Executive Branch, has not even started construction. This situation exists because a few obstructionists who claim to be environmentalists have taken and are taking EXTREME measures to block, to deny the project. The many local interests have gone way overboard in their granting of mitigation measures. The project is SOUND AND EXTREMELY BENEFICIAL as it is presently scoped; all environmental real issues have been considered and mitigation measures have been taken wherever warranted. I am conservation minded. I think, talk and practice good, common sense conservation. I also believe in the well being of my fellow man. I do not believe that the radical conservationists take a balanced, common sense approach to conservation; I believe that they significantly underweight the importance of PEOPLE. They have too little concern for the quality of life of the PEOPLE who live and work and who now endure many real hardships in the project area.

Mr. Reese, NOW IS THE TIME for the Executive Branch of the U.S. Government to stand up and go forward with this important project. Col. Scherer, Brig. Gen. Arnold, LTG Flowers, the Honorable Secretary of the Army, must expeditiously move this project forward, NOW. Congress has spoken. The PEOPLE have spoken. Do not let the OBSTRUCTIONISTS further delay this project.

The Corps appreciates your interest in the project and thanks you for your letter and e-mail message.

M-119

I close by extending my very best regards to you and to the MANY VERY FINE professionals of all grades in the Memphis District,

John G. Waggener
Maj. Gen., US Army

(Ret.)

Tel: 573 346 6745

Colonel Jack V. Scherer, Commander, Memphis District, Mr. David L. Reese, Branch Chief, and Mr. Larry Sharpe, Project Manager. I submit my current comments on the updated Draft SEIS for the St. Johns Bayou/New Madrid Floodway Flood Control Project- the comments which I submitted last May, attached, still pertain, the attachment has been updated only with today's date and the name of the current District Engineer. My additional comments are: AFTER 47 YEARS OF DELAY THIS VERY IMPORTANT AND WORTHWHILE PROJECT NEEDS TO BE APPROVED **NOW** AND BE IMPLEMENTED WITHOUT FURTHER DELAY. THE RADICAL ENVIRONMENTALISTS HAVE THROWN IN NEW ROADBLOCKS IN THEIR CONTINUED ATTEMPTS TO STOP THE PROJECT BY THEIR FAVORING ALTERNATIVES WHICH ARE NOT ECONOMICALLY FEASIBLE. ONLY ALTERNATIVES 1 AND 2 ARE ECONOMICALLY FEASIBLE; THEY PROTECT THE ENVIRONMENT, FISH, WATERFOWL, OTHER WILDLIFE AND CREATURES **AND ENHANCE THE QUALITY OF LIFE OF HUMAN BEINGS**, HUMAN BEINGS WHO SHOULD STILL BE IMPORTANT EVEN TO THE RADICAL ENVIRONMENTALISTS! I RECOMMEND THAT EITHER ALTERNATIVE 1 OR 2 BE ADOPTED AND THAT ALTERNATIVES 3, 4 AND 5 BE REJECTED. John G. Waggener, RR 2 Box 2223, Linn Creek Mo 65052, tel. 573 346 6745, fax: 573 346 2998

M-120

12/18/2001

1772 Overton Park
Memphis, TN 38112

Home Phone 301-274-1949

December 09, 2001

Colonel Jack Scherer
Memphis District Engineer
U.S. Army Corps of Engineers
B-202 Clifford Davis Federal Building
Memphis, TN

Dear Colonel Scherer:

I am writing regarding the proposed closure of the New Madrid Floodway levee gap. As a member of the Sierra Club and Ducks Unlimited I consider myself a strong environmentalist. From my review of the Corps' original Environmental Impact Statement as subsequently (and exhaustively) supplemented it appears the Corps has thoroughly considered all environmental issues in planning the project.

I am of the opinion that this project, as originally planned, when coupled with appropriate mitigation is environmentally friendly. If the project is to be built, it is only reasonable to use the plan with the greatest cost-benefit ratio. The operation of the closure to hold water during the winter season, coupled with the mitigation area should do much to impact the environment in a completely positive manner.

I am often frustrated by so-called environmentalists opposing Corps projects without consideration of the facts. In this case, allegations the project will adversely impact 10,000 acres of wetlands is ludicrous. My family has farmed in this area for generations and I am familiar with its composition.

The plain fact is the proposed project is good for both the environment and the community.

Sincerely,

Dean White

The Corps appreciates your interest in the project and thanks you for your letter.

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