



DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
635 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

REPLY TO
ATTENTION OF:

April 9, 2012

Planning, Programs and
Project Management Division

Mr. John Madras, Director
Water Protection Program
Missouri Department of Natural Resources
P. O. Box 176
Jefferson City, Missouri 65102

Dear Mr. Madras:

Thank you for reviewing the pre-draft copy of our Jameson Island Unit Shallow Water Habitat Restoration Project – Project Implementation Report with Integrated Environmental Assessment and Section 404(b)(1) Evaluation (PIR). I am writing to address the two recommendations you provided in your letter dated March 23, 2012 and to officially request time on the agenda at the May 2nd Missouri Clean Water Commission (Commission) meeting.

In that letter, you advised the Corps to not request water quality certification prior to meeting with the Commission since that application would place the Missouri Department of Natural Resources (MDNR) on a 60-day time limitation to address the matter. To address this request, the Corps has removed the certification request from the issuance of the Public Notice, and will not make the request until after the close of the public comment period.

In order to have a complete record for Commission consideration and as part of our NEPA/404 compliance review of the proposed project, the Corps has issued a joint Public Notice with MDNR on March 30, 2012 for the proposed project. In addition, the Corps will be conducting a Public Information Meeting on April 17th, in Arrow Rock, Missouri, to discuss this project with stakeholders. These steps will allow the Corps to have the public comments and our response for the May 2nd Commission meeting.

You also advised the Corps to address the Commission on how the current proposal is consistent with the March 12, 2008 Amended Order No. 07-001, *USACE Shallow Water Habitat Construction Projects*, or otherwise consistent with the duties and responsibilities of the Commission.

Subsequent to the order, the Corps has taken steps to address the Commissions' concerns that formed the basis of the 2008 Amended Order regarding impacts to water quality of the Missouri River. This includes an ongoing water quality monitoring program on the Missouri River, and funding an independent scientific review of sediment management on the

Missouri River (National Research Council 2011). In addition, a federal position statement related to habitat creation and sediment management was also developed and signed by the Corps, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and National Park Service in January 2011. The information in the PIR addresses the concerns that were identified by the Commission and clearly demonstrates that the proposed project is in full compliance with the Clean Water Act. The project as proposed benefits the native aquatic life of the Missouri River, and we believe the approval of the related permit request would be fully consistent with the duties and responsibilities of the Commission.

To maintain strong communications with the Department and Commission, my staff has recently provided these documents to Commission members for their review. In addition, we have made an effort to contact each of the Commission members to discuss any concerns that the individual Commissioners may have. As always, my staff is available to discuss the technical aspects of this project, with the Department or any members of the Commission, prior to the May 2nd Commission meeting. Any comments or questions concerning the technical aspects of our analysis submitted during the public interest review will be addressed in our final document.

I am formally requesting time on the agenda of the May 2nd Commission meeting for the Commander of the Kansas City District to provide information related to our proposed project, and it is anticipated that he will request that the Commission address the existing order and that it allow MDNR to move forward with issuance of the Section 401 and 402 of the Clean Water Act permits for the project as proposed.

In the interim, should you require any additional information, you should contact Mr. Michael Chapman, Implementation Manager – Kansas City District, Missouri River Recovery Program at 816-389-3310 or by email at Michael.D.Chapman@usace.army.mil.

Sincerely,



Steven A. Fischer
Program Manager
Missouri River Recovery Program



DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
635 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

REPLY TO
ATTENTION OF:

March 30, 2012

Planning, Programs and
Project Management Division

Dr. Samuel M. Hunter, Chair
Missouri Clean Water Commission
P. O. Box 984
Sikeston, Missouri 63801

Dear Dr. Hunter :

The U.S. Army Corps of Engineers (Corps) is currently working to restore fish and wildlife habitat on the Missouri River in Iowa, Nebraska, Kansas and Missouri. Restoration of shallow water habitat (SWH) is subject to requirements of the Clean Water Act (Sections 404, 401 and 402) as it often involves placement of fill material into the Missouri River and clearing/grubbing. On April 23, 2007, the MCWC requested that the Corps stop construction of SWH until it could demonstrate that this activity has no adverse affect on water quality in Missouri. While several projects are currently ongoing in Nebraska, Iowa and Kansas, in response to concerns raised by the Missouri Clean Water Commission (MCWC) the Corps voluntarily halted or altered active SWH restoration projects in Missouri. The MCWC subsequently issued a revised order, dated March 2008, related to Corps SWH construction efforts. This history is further described in the enclosed fact sheet.

Per their March 23, 2012 letter, MDNR believes that the MCWC must address the existing orders based on the new information the Corps has obtained through studies described below and input from the public interest review, prior to any permit determination under Section 401 and 402 of the Clean Water Act. I want to provide you the substantive information that has been obtained through monitoring, an independent study and technical analysis since 2007 to aid you as you revisit the orders.

Since the time that the the Corps halted its habitat development activities, we have worked to address the concerns of the MCWC about water quality by developing a water quality monitoring program, including pre-construction monitoring plans written collaboratively with MDNR technical staff, and funding an independent scientific review of sediment management on the Missouri River (report enclosed). In addition, a federal position statement related to SWH

creation and sediment management was also developed and signed by the Corps, U. S. Environmental Protection Agency, U. S. Fish and Wildlife Service, and National Park Service in January 2011 (copy enclosed). The technical findings of the study and monitoring efforts address the water quality concerns raised by the MCWC. Subsequently, in an effort to reinitiate SWH construction in Missouri, the Corps used this information to assess the effects of a range of alternatives in a comprehensive analysis called a "Project Implementation Report" (PIR) for the proposed Jameson Island Unit SWH Restoration Project. A copy of the DRAFT PIR along with a summary fact sheet is enclosed. This PIR was prepared with assistance from U.S. Environmental Protection Agency Region VII and U.S. Fish and Wildlife Service staff and has been reviewed by Missouri Department of Natural Resources (MDNR) Water Protection Program staff. The Missouri Department of Conservation has reviewed Water Quality related sections of the report and it has been subjected to a technical and legal review within the Corps. These reviews have not identified any substantive unresolved issues nor have any of these agencies found errors in the conclusions of this report. The Corps believes that the PIR addresses the concerns of the MCWC and demonstrates full compliance with requirements of the Clean Water Act.

As part of our NEPA/404 compliance review of the proposed project the Corps issues a joint Public Notice with MDNR. Comments received in response to that notice are used by both agencies to complete their evaluations of the proposed project. At the conclusion of our public interest review, the Corps will address comments received in response to the Public Notice. Provided that there are no remaining substantive issues, the Corps would request Section 401 Water Quality Certification and a Construction Stormwater - Section 402 National Pollutant Discharge Elimination System Permit for the project from MDNR. MDNR believes that the MCWC must address the existing orders based on the new information contained in the PIR and input from the public interest review, prior to any permit determination under Section 401 and 402 of the Clean Water Act. In order to have a complete record for MCWC consideration, the Corps will be issuing the Public Notice in time to have comments reviewed and addressed for consideration at the May 2nd MCWC meeting. We anticipate making the request prior to the May 2nd Commission meeting, and are available to appear at that meeting in support of our request, if needed.

In the interim my staff is available to answer any questions you might have concerning the Jameson Island Unit SWH Restoration Project, the information provided, our fish and wildlife habitat restoration efforts on the Missouri River or the overall Missouri River Recovery

Program. This letter along with the supporting information is being provided to each member of the Commission. Should you require any additional information, you should contact Mr. Michael Chapman, Implementation Manager – Kansas City District, Missouri River Recovery Program at 816-389-3310 or by email at Michael.D.Chapman@usace.army.mil.

Sincerely,



Anthony J. Hofmann
Colonel, Corps of Engineers
District Commander

Enclosures:

1. Sediment Management Study
2. Federal Position
3. DRAFT PIR (CD)
4. Summary Fact Sheet



**US Army Corps
of Engineers** ®
Kansas City District

MISSOURI RIVER RECOVERY PROGRAM

Jameson Island Unit Shallow Water Habitat Restoration Project

Building Strong

SUBJECT: On 30 March 2012 the Corp Will Announce a Plan to Resume Missouri River Shallow Water Habitat (SWH) Restoration Efforts in Missouri

ISSUE: In 2007, the Corps halted SWH construction in Missouri to allow for an independent scientific study of sediment management on the Missouri River in response to concerns raised by the Missouri Clean Water Commission (MCWC). The Corps has prepared a Project Implementation Report (PIR), which includes study information along with site specific and programmatic water quality monitoring information. The Corps believes these findings address MCWC concerns and demonstrates full compliance with requirements of the Clean Water Act. Based on this information, the Corps is proposing to resume SWH construction in Missouri.

THE PROJECT: The Corps' Recommended Plan (Alternative 4) would extend the existing Jameson Island Chute approximately one mile to the west where another outlet to the Missouri River would be constructed. The existing chute outlet would be diverted with a closure structure constructed with approximately 25,000 tons of clean rock riprap to +5 CRP. The area between the diversion and the river would serve as backwater habitat. Initially, a 250-foot wide chute alignment would be cleared and grubbed using heavy construction equipment with woody vegetation and three to four feet of earthen material stockpiled on the outer limits of the cleared zone. Next, to create the chute, approximately 420,812 cubic yards of earthen material would be removed using a hydraulic dredge. This would create a 100-foot-wide channel. Dredged earthen material would be pumped as slurry mixture of water and sediment and placed into the Missouri River in a location and manner that it would be integrated into the existing bedload. Through time and dependent on river levels, the chute would be expected to widen and deepen and approximately 546,580 cubic yards of additional earthen material would be integrated through natural river processes into the Missouri River bedload. This process would continue until a balance of flow and chute width is reached as limited by flow control structures, and flow of sediment in versus out would be approximately balanced. Woody debris entering the river as the channel widened and meandered would provide additional fish and wildlife habitat. This would result in approximately 16.77 acres of SWH (13.77-acre chute and a 3-acre backwater) at completion of construction which would eventually be expected to develop through natural river processes to approximately 30 acres of SWH (27-acre chute and a three acre backwater).

LOCATION: The project is located on existing public land, acquired from willing sellers, as part of the U.S. Fish and Wildlife Service Big Muddy National Fish and Wildlife Refuge. The site is in Sections 30 and 31, Township 50 North, Range 18 West, near the town of Arrow Rock, Saline County, Missouri, as shown on attached sheet. The riverbank opposite the proposed project is located in Howard County, Missouri with the nearest town being Petersburg.

AUTHORITY: The Missouri River Bank Stabilization and Navigation Fish and Wildlife Mitigation Project was initially authorized in Section 601(a) of WRDA86 (Public Law 99-662). The authorization included the acquisition and development of 29,900 acres of land, and habitat development on an additional 18,200 acres of existing public land in the states of Iowa, Kansas, Missouri and Nebraska. The total amount of land authorized for mitigation by WRDA86 was 48,100 acres. Section 334(a) of WRDA99 (Public Law 106-3) modified the Mitigation Project by increasing the amount of acreage to be acquired and/or mitigated by 118,650 acres and including the restoration of 7,000 to 20,000 acres of SWH. Therefore, the total amount of land authorized for mitigation is currently 166,750 acres.

ENDANGERED SPECIES ACT COMPLIANCE: The proposed project would also assist the Corps in meeting SWH goals established for the federally listed endangered pallid sturgeon on the Missouri River by the U.S. Fish and Wildlife Service (USFWS) in their 2003 Amendment to the 2000 Biological Opinion (Bi-Op) on the Operation of the Missouri River Main Stem Reservoir System, Operation and Maintenance of the Missouri River Bank Stabilization and Navigation Project, and Operation of the Kansas River Reservoir System.

At the program level, failure to meet the Bi-Op goals through construction of SWH could require the Corps to meet SWH targets using mainstem reservoir flows, may require reconsultation with USFWS and potentially could lead to legal action and court directed measures. Changes in operations to meet SWH goals could impact the current level of economic benefit associated with the mainstem reservoir system.

KEY POINTS:

Water Quality – The Corps has site specific and programmatic water quality monitoring programs to ensure that SWH projects do not adversely impact water quality. To date, these monitoring efforts have not found any exceedance of State criteria, violation of State standards or evidence of environmental harm.

Nutrients - The Corps report acknowledges that SWH restoration efforts remobilize nutrients associated with sediment that are already in the Missouri River system but trapped within the structures of the Bank Stabilization and Navigation Project. Corps site specific and programmatic water quality monitoring, developed in coordination with MDNR, have found these increases do not result in a changed condition from upstream or downstream monitoring sites, and do not violate State

standards or result in environmental harm. There are no numeric criteria for nutrients in the state of Missouri.

Gulf Hypoxia – The Corps report acknowledges that SWH restoration efforts remobilize nutrients associated with sediment that are already in the Missouri River system but trapped within the structures of the Bank Stabilization and Navigation Project. The NAS report found that “Given the relatively small volumes of sediment loadings from the Corps’ Missouri River ESH and SWH projects, it is not appropriate to relate changes in the areal extent of the hypoxic zone to sediment and nutrient loadings from Missouri River ESH and SWH projects in any given year.”

National Academies Study - In an attempt to address MCWC concerns, the Corps sought an independent and unbiased evaluation by enlisting the National Academies to evaluate and report on the role of sediment management in the Missouri River. The National Academies is a private, non-profit, self-perpetuating society of distinguished scholars, chartered by Congress, who advise the federal government on scientific and technical matters. The Corps specifically asked the National Academies to address:

- the roles of Missouri River sediment in river ecology and restoration, and its implications for water quality and coastal restoration downstream in the northern Gulf of Mexico;
- environmental and economic considerations regarding nutrient and contaminant loadings;
- alternatives for reintroducing sediment into the system; and
- current Corps of Engineers restoration actions as they relate to sediment and nutrients, and how they might be improved.

The National Academies issued their study in 2011.

Federal Position - In January 2011, four federal agencies (Corps, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service and the National Park Service) completed a position statement related to creation of SWH downstream of Gavins Point Dam. In that position statement the four signatory federal agencies stated their support for creation of SWH in furtherance of the requirements to mitigate habitat losses as specified by the Bi-Op, and in accordance with their respective statutory responsibilities. The federal agencies recognized the importance of receiving-water characteristics (i.e., the natural, chemical and physical condition of each specific waterbody and the associated water quality requirements of its resident aquatic life) in relation to the Clean Water Act. In creating SWH, and specifically at sites where sediment contribution to the Missouri River is likely, the four signatory federal agencies agreed to: continue to ensure decisions are formulated to enhance and protect native species, aquatic life and designated beneficial uses.; monitor representative SWH sites to answer key questions such as effects and or benefits of SWH creation on water quality and primary productivity; and finally, to continue to implement project activities in compliance with all laws. In addition, the Corps agreed to implement recommendations provided in the report by the National Academies for

improved sediment management and adaptive processes in association with the Missouri River Recovery Program, including SWH creation projects.

Permitting “double standard” - In 2005 the Corps, working with MDNR, developed a General Permit (GP-699000) that specifically recognized the differences between typical construction and the Corps’ environmental restoration activities on the Missouri River. GP-69900 authorized “return water and stormwater runoff from dredged material deposition sites, bank notching/chute excavation to allow the river to actively scour and widen and other disturbances along the Missouri and Mississippi Rivers for fish and wildlife mitigation projects and shallow water habitat development projects.”

GP-69900 ensured the protection of wetlands adjacent to the proposed habitat construction project, prevented the introduction of and hazardous or deleterious substances from entering adjacent wetlands and the Missouri River, required notification to MDNR on each project prior to construction and issuance by MDNR of a State Operating Permit and outlined conditions where GP-699000 could not be used and an individual permit would be required. What GP-699000 didn’t do was prevent the Corps from restoring fish and wildlife habitat and the dynamic natural river processes that would further develop and maintain it. The MCWC did not renew GP-699000 and now requires the Corps to apply for an individual permit for any SWH construction activities.

The MCWC has contended that there is a “double standard” under permitting requirements of Section 402 of the Clean Water Act – National Pollutant Discharge Elimination System (NPDES) for stormwater runoff from general construction projects and Corps fish and wildlife habitat restoration projects on the Missouri River. The Section 402 NPDES permit program is administered in Missouri by the MDNR. MCWC further contends that the CWA defines soil as a pollutant and that pollutants must be prevented from entering the waterways of Missouri to the point that the MCWC order requires the Corps to stabilize all excavated material and all excavated areas to prevent any sediment greater than *de minimus* from entering the Missouri River. Through the MCWC March 2008 order, a zero sediment input standard appears to have been created. This same standard is not applied to local governments, water treatment facilities, levee districts, commercial sand dredgers, casino owners, or the numerous other interests who have applied for and received Clean Water Act permits to discharge sediment or other pollutants into waters of the United States. The Corps believes that those conditions are not consistent with the project purpose and constructively represent denial.

Clean Water Act compliance - The Corps has completed a preliminary compliance evaluation of the proposed project with the Section 404(b)(1) Guidelines and determined that the proposed project is in full compliance. Provided that no substantive issues are identified during the public interest review, the Corps would request a Section 401 Water Quality Certification and Section 402 National Pollutant Discharge Elimination System (NPDES) permit from the MDNR. Corps SWH restoration activity is currently ongoing and permitted in IA/NE/KS.

Flood Risk Management - No adverse impacts to flood risk management are expected from construction and operation of the proposed project. There are no existing flood risk management systems located on the project area. On the river bank opposite the project area is an extensive flood risk management system comprised of the Howard County Levee District No. 3, Section 2, the Howard County Levee District No. 7 and the Howard County Levee District No. 2. These Districts were organized by the Howard County Circuit Court, and together provide a complete flood risk management unit. Total area within the unit is 13,861 acres of which approximately 13,400 acres are in agricultural production. The Corps must develop the Mitigation Project in a manner that does not adversely affect the current congressionally authorized purposes of the Missouri River, including flood control. Designs for SWH are developed to ensure that these projects do not adversely impact existing flood risk management systems. As with the BSNP, the Corps routinely monitors performance of SWH restoration projects to determine if they are contributing to adverse impacts on adjacent flood risk management systems. If these conditions are identified the Corps works with the affected Levee District to develop and implement a corrective plan of action.

Since development of the original Jameson Island Chute Project, concerns have been raised about its effect on the Howard County Levee, located on the opposite bank of the Missouri River, and particularly whether the chute is causing increased erosion on the bank immediately adjacent to the levee. A Corps review found that aerial photos clearly show erosion problems near river mile 211 pre-date the original 2007 Jameson Island Chute Construction project and had been a recurrent problem in this area since at least the 1993 Flood. The Corps also completed a model study for the Jameson Chute Exit which showed that flows from the original Jameson Island Chute project are quickly diverted downstream by the main flow of the Missouri River and are not diverting or forcing flow onto the opposite bank.

Howard County Levee Districts – The Howard County Levee Districts requested that the Corps either angle the existing Jameson Island Chute downstream or block the chute and relocate the outlet further downstream prior to the halt in construction in 2007. The Corps met with the Howard County Levee District representatives, and they continue to support plans that block the existing outlet, extend the chute and relocate the outlet further downstream. The proposed project is consistent with this recommendation.

Impacts to Navigation - No adverse impacts to navigation are expected from construction and operation of the proposed project. Since the BSNP was completed, the area immediately upstream and adjacent to the proposed project site has always had two of the narrowest and sharpest bends on the lower Missouri River. In addition, there is a very large sandbar on the inside of the Jameson Bend which pre-dates SWH restoration efforts in this area by many years. The Corps routinely monitors the Missouri River navigation channel and coordinates these efforts with U.S. Coast Guard and commercial navigators on the river. In areas where navigation impediments are identified, the Corps works with

U.S. Coast Guard and commercial navigators to develop and implement corrective action that will restore and maintain the authorized nine foot deep by 300-foot wide navigation channel.

The Corps must develop the Mitigation Project in a manner that does not adversely affect the current congressionally authorized purposes of the Missouri River, including navigation. Designs for SWH are developed to maintain sufficient flow in the navigation channel, and not result in deposition that would result in shoaling within the navigation channel or create other hazards to navigation.

Economic Impact – Due to the halt in work, funding for SWH construction in Missouri from FY 2008, FY 2009, FY 2010, and FY2011 was shifted to the states of Kansas, Iowa and Nebraska.

Importance of SWH - The Corps' 2003 SEIS estimated that between 1912-2003, as a result of the BSNP, in Missouri alone 55,800 acres of aquatic habitat and 27,700 acres of terrestrial habitat had been lost in the natural channel, with an additional 221,400 acres of terrestrial habitat within the meander belt. Total habitat losses in Missouri were estimated at 304,900 acres. Considering that the estimated habitat losses for the four states (MO/IA/KS/NE) totaled approximately 522,000 acres, it is clear to see that Missouri bore the brunt of fish and wildlife habitat losses as a result of the Corps projects.

Shallow water habitat restoration at this site will not only assist in meeting the fish and wildlife habitat mitigation goals of the Corps' Missouri River Bank Stabilization and Navigation Fish and Wildlife Mitigation Project (Mitigation Project) but also contribute towards the SWH acreage metrics of the U.S. Fish and Wildlife Service's 2003 Amendment to the 2000 Biological Opinion on the Operation of the Missouri River Main Stem Reservoir System, Operation and Maintenance of the Missouri River Bank Stabilization and Navigation Project (BSNP), and Operation of the Kansas River Reservoir System (Bi-Op).

Not just restoration of SWH, but of the dynamic process that maintains it - SWH includes side channels, backwaters, depositional sandbars detached from the bank, and low-lying depositional areas adjacent to shorelines. Key components of SWH are their dynamic nature with depositional and erosive areas, predominance of shallow depths intermixed with deeper holes and secondary side channels, lower velocities and higher water temperatures than main-channel habitats. That dynamic process and the habitat it creates is critical to the fish and wildlife resources of the Missouri River. That dynamic process and the resulting habitat were largely eliminated by construction of the Corps' Missouri River Bank Stabilization and Navigation Project. Creating a side channel chute where both banks are fully stabilized as suggested by MCWC would not be consistent with the purpose of the habitat restoration.

STUDY DOCUMENTS: The Public Notice and Project Implementation Report with Integrated Environmental Assessment and Section 404(b)(1) Evaluation for the Jameson Island Unit Shallow Water Habitat Restoration Project are available at:

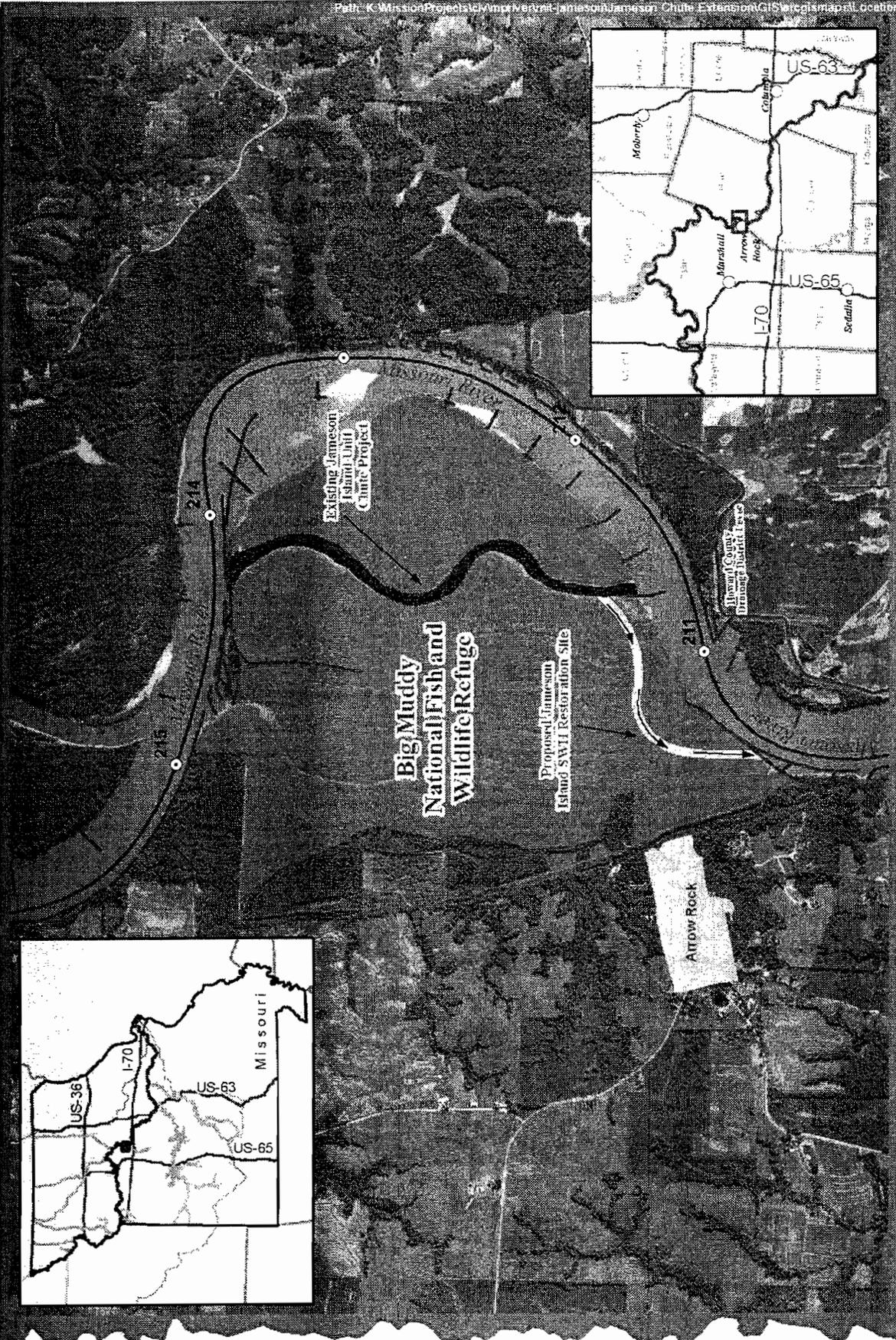
<http://www.nwk.usace.army.mil/regulatory/CurrentPN/currentnotices.htm>

PUBLIC MEETING: The Corps will hold an open forum public meeting to provide information about the project on **TBD**.

PUBLIC COMMENT: Federal agencies, Tribes, the general public, organizations, local agencies and governments can provide written comments on the project to the Corps during the availability period, 30 March 2012 – 29 April 2012, at ATTN: PM-PR (Hoover), U.S. Army Corps of Engineers – Kansas City District, 700 Federal Bldg., 601 E. 12th St., Kansas City, MO 64106

QUESTIONS: Questions concerning the proposed project should be directed to Zachary L. White P.E., Project Manager, at 816-389-3019 or by email at zachary.l.white@usace.army.mil

<http://www.moriverrecovery.org>



MISSOURI RIVER RECOVERY PROGRAM
www.morriverecovery.org

Jameson Island Site Location

- River Miles
- Major Highways
- Missouri River
- Structures
- Existing Jameson Chute
- Proposed SWH Site
- USFWS
- Missouri River Basin

Imagery Date 2010

**FEDERAL POSITION ON SEDIMENT MANAGEMENT
MISSOURI RIVER RECOVERY, SHALLOW WATER HABITAT CREATION
DOWNSTREAM OF GAVINS POINT DAM**

**10 JANUARY 2011
(SUPERSEDES THE 14 FEBRUARY 2008 POSITION)**

The signatory federal agencies support creation of shallow water habitat (SWH) in furtherance of the requirements to mitigate habitat losses, as specified by the U.S. Fish and Wildlife Service Missouri River Biological Opinions¹, and in accordance with their respective statutory responsibilities. Federal agencies recognize the importance of receiving-water characteristics (i.e., the natural, chemical and physical condition of each specific waterbody and the associated water quality requirements of its resident aquatic life) in relation to the Clean Water Act. The National Academies² provided recommendations to the U.S. Army Corps of Engineers for improved sediment management and adaptive processes in association with the Missouri River Recovery Program, including SWH creation projects. In creating SWH, and specifically at sites where sediment contribution to the Missouri River is likely, the signatory agencies shall:

- 1) Continue to ensure decisions are formulated to enhance and protect native species, aquatic life, and designated beneficial uses. The Missouri River Biological Opinions raised awareness regarding the return of sediment to the Missouri River to support endangered native species. Creation of SWH is for the purpose of benefiting native species adversely affected by the loss of historical physical habitat, loss of natural riverine processes, and reduced alluvial sediment load. The U.S. Army Corps of Engineers has chosen SWH creation methods (dredging, side-cast, etc.) that favor restoration of natural processes to support endangered native species, with regard for pre-project site characterization through soil, water, and elutriate tests, while also maintaining all authorized purposes (e.g. the 1944 Flood Control Act) and compliance with the Clean Water Act.
- 2) Monitor representative SWH sites to answer key questions such as effects and or benefits of SWH creation on water quality and primary productivity. Recommendations from the National Academies, which stress the importance of learning over time, will be considered when developing monitoring plan(s) and adaptive processes for SWH creation.
- 3) Continue to implement project activities in compliance with all laws, for example the Clean Water Act (including permit compliance and Section 401 Certification), Fish and Wildlife Coordination Act, Endangered Species Act, National Environmental Policy Act, Water Resource Development Act, Flood Control Act, River and Harbor Act, Wild and Scenic Rivers Act, and Data Quality Act.

¹ U.S. Fish and Wildlife Service (USFWS). 2003. Amendment to the 2000 Biological Opinion on the Operation of the Missouri River Main Stem Reservoir System, Operation and Maintenance of the Missouri River Bank Stabilization and Navigation Project, and Operation of the Kansas River Reservoir System.

² National Research Council (NRC). 2010. Pre-publication Copy. Missouri River Planning: Recognizing and Incorporating Sediment Management. Washington, D. C. National Academies Press.

FEDERAL POSITION ON SEDIMENT MANAGEMENT
MISSOURI RIVER RECOVERY, SHALLOW WATER HABITAT CREATION
DOWNSTREAM OF GAVINS POINT DAM

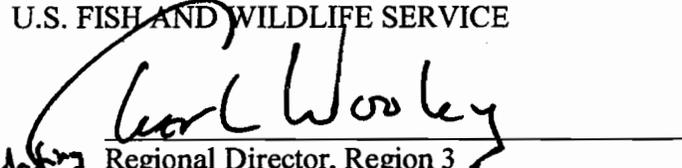
SIGNATORY AGENCIES

U.S. ARMY CORPS OF ENGINEERS


Commander, Northwestern Division

1/10/11
Date

U.S. FISH AND WILDLIFE SERVICE


Acting Regional Director, Region 3

1/10/11
Date


Regional Director, Region 6

1/10/11
Date

ENVIRONMENTAL PROTECTION AGENCY


Regional Administrator, Region 7

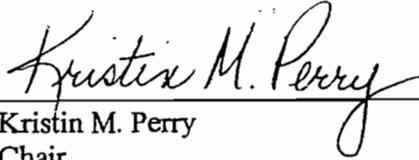
1/6/11
Date

NATIONAL PARK SERVICE


Regional Director, Midwest Region

1-11-2011
Date

Missouri Clean Water Commission Order No. 07-001 March 12, 2008



Kristin M. Perry
Chair

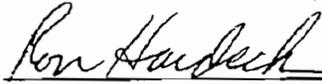
Ron Hardecke
Vice-Chair

Samuel M. Hunter
Commissioner

Frank L. Shorney
Commissioner

Ben A. "Todd" Parnell, III
Commissioner

Kristin M. Perry
Chair



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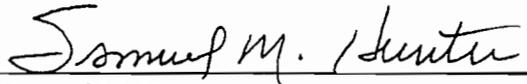
Frank L. Shorney
Commissioner

Ben A. "Todd" Parnell, III
Commissioner

Missouri Clean Water Commission Order No. 07-001 March 12, 2008

Kristin M. Perry
Chair

Ron Hardecke
Vice-Chair


Samuel M. Hunter
Commissioner

Frank L. Shorney
Commissioner

Ben A. "Todd" Parnell, III
Commissioner

Kristin M. Perry
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Ron Hardecke
Vice-Chair

Samuel M. Hunter
Commissioner

Frank L. Shorney

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Commissioner

Ben A. "Todd" Parnell; III
Commissioner

Missouri Clean Water Commission Order No. 07-001 March 12, 2008

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Frank L. Shorney
Commissioner



Ben A. "Todd" Parnell, III
Commissioner

