# LATHROP & GAGE LLP

DAVID A. SHORR
DIRECT LINE: 573.761.5005
EMAIL: DSHORR@LATHROPGAGE.COM
WWW.LATHROPGAGE.COM

314 E. HIGH STREET
JEFFERSON CITY, MISSOURI 65101
PHONE: 573.893.4336
FAX: 573.893.5398

May 31, 2011

***VIA E-MAIL TRANSMISSION***
David.W.Gesl@usace.army.mil
***AND FEDERAL EXPRESS***

Division Engineer
Attn: David W. Gesl
Administrative Appeals Review Officer
U.S. Army Engineer Division, Northwestern Division
PO Box 2870
1125 NW Couch Street
Portland, OR 97209

Re: **REQUEST FOR APPEAL**

Appeal of Record of Decision for Authorization of Commercial Sand and Gravel Dredging on the Lower Missouri River signed and dated March 31, 2011, by Anthony J. Hofmann, Colonel, EN Commanding

Appeal of Proffered Permits:
**St. Louis District:**
J.T.R., Inc.(Permits P-2789, P-2339, P-2340, P-2341)
Limited Leasing Company (Permits P-2788, P-2342)
**Kansas City District:**
Capital Sand Company, Inc. (Permits 2011-361, 2001-1429)
Hermann Sand & Gravel (Permits 2011-362, 2001-1430)
Con-Agg of Missouri, LLC (Permits 2011-364, 2001-1434)
Holliday Sand & Gravel, LLC (Permits 2011-363, 2001-1431)

Appeal of Denied Permit Application:
Capital Sand Company, Inc. Application No. MVS-2008-00193

Dear Mr. Gesl:

The undersigned represents the above companies and on their behalf hereby submits Section II of the Notification of Administrative Appeals Options and Process and Request for Appeal form. The basis for our request for appeal is attached.

Besides the form, we submit a detailed Request for Appeal and include a brief in support of our request for consideration. We believe our request for appeal, along with its brief, are sufficient to constitute a complete request with merit.

This request for appeal is for

A. Appeal of the Record of Decision for Authorization of Commercial Sand and Gravel Dredging on the Lower Missouri River;

B. Appeal of all the proffered permits to the various dredgers currently existing on the Lower Missouri River; and

C. Appeal of the denial for a new permit on behalf of Capital Sand Company rejected by the St. Louis District based upon the contents of the Record of Decision.

The permittee appellants request a formal conference consistent with Section 33 CFR Part 331.7 of the Federal Rules.

In addition, as more fully stated, we request a complete copy of the Administrative Record, including all internal agency communications relating to the Environmental Impact Statement for Commercial Sand and Gravel Dredging on the Lower Missouri River and information pertaining to the care, operation, maintenance, and engineering relating to the Bank Stabilization and Navigation Project and the project's direct or indirect impact on the accrual of sands and bottom materials of the bed.

It is our understanding that the St. Louis District, the Kansas City District, and the Division have provided modification to existing permits for dredging on the Missouri River to allow ongoing operations, albeit consistent with the proffered permit. While we object to the terms and conditions of the proffered permit, we acknowledge that no temporary restraining order, preliminary injunction, or permanent injunction is necessary during the pendency of this appeal. As such, the above dredgers will continue operations on the river during the pendency of your review. If this is not your understanding, we would appreciate confirmation so we may seek other legal remedies.

On behalf of the above permittee appellants, I remain

Very truly yours,

LATHROP & GAGE LLP

By: David A. Shorr

DAS/jf

Enclosures:
- Section II Form – Permit Appeals
- Section II Form – Permit Denial
- Request for Appeal
- Memorandum in Support of Request for Appeal

cc w/enclosures via U.S. Mail:
- Col. Anthony J. Hofmann, Kansas City District
- Col. Thomas E. O'Hara, Jr., St. Louis District
- Sara Parker Pauley, Director, MDNR
- John Mitchell, Director of Environment, Kansas Department of Health & Environment
- J.T.R., Inc.
- Limited Leasing Company
- Capital Sand Company, Inc.
- Hermann Sand & Gravel
- Con-Agg of Missouri, LLC
- Holliday Sand & Gravel, LLC

SECTION II - Fill out this section and return this form to the appropriate office only if submitting a request for modification or reconsideration to the District Engineer, or if submitting a request for Administrative Appeal to the Division Engineer. All such submittals must be made within 60 days of the date of this notice.

Submit the following requests to the District Engineer:

A. Modification of an INITIAL PROFFERED PERMIT (Item A).
D. Reconsideration of an APPROVED JURISDICTIONAL DETERMINATION based on NEW INFORMATION (Item D RECONSIDERATION).

Submit the following requests to the Division Engineer:

B. Administrative Appeal of a PROFFERED PERMIT (Item B).
C. Administrative Appeal of a PERMIT DENIAL (Item C).
D. Administrative Appeal of an APPROVED JURISDICTIONAL DETERMINATION (Item D APPEAL) (for reasons other than reconsideration of an approved JD based on new information).

(Note: Preliminary Jurisdictional Determinations (Item E) are not appealable. If you have concerns regarding a preliminary Jurisdictional Determination, you can request an approved Jurisdictional Determination).

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

Basis for objections and appeal are more fully stated in the attached Request for Appeal, Memorandum in Support of Request for Appeal, and a related appeal of Holliday Sand & Gravel, LLC separately submitted.

SUBMITTAL OF NEW OR ADDITIONAL INFORMATION: The District Engineer may accept and consider new information if you request a modification to an initial proffered permit (Part A), or a reconsideration of an approved JD (Part D). An administrative appeal to the Division Engineer is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the administrative record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

| | |
|---|---|
| If you have questions regarding this decision and/or the appeal process you may contact:<br>DISTRICT ENGINEER<br>**Attn: Mark D. Frazier**<br>**Chief, Regulatory Branch**<br>**U.S. Army Engineer District, Kansas City**<br>**601 E. 12th Street, Suite 402**<br>**Kansas City, MO 64106-2896**<br>**Telephone: 816-389-3990**<br>(Use this address for submittals to the District Engineer) | If you wish to submit an appeal or have questions regarding the appeal process you may contact:<br>DIVISION ENGINEER<br>**Attn: David W. Gesl**<br>**Administrative Appeals Review Officer**<br>**U.S. Army Engineer Division, Northwestern Division**<br>**P.O. Box 2870**<br>**Portland, OR 97208-2870**<br>**Telephone: 503-808-3825** |

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

| | | |
|---|---|---|
| Signature of appellant or agent. David A. Shorr | Date: May 31, 2011 | Telephone number: (573) 893-4336 |

## SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

1. Adequate tonnage exists to substantiate this request.

2. The Record of Decision on which this is based is in error.

3. Adequate tonnage exists within the St. Charles segment to support this request.

4. Additional information is attached as part of the over-arching appeal of the Record of Decision for Authorization of Commercial Sand and Gravel Dredging on the Lower Missouri River.

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

## POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Charles F. Frerker, PM
US Army Corps of Engineers
St. Louis District (OD-F)
1222 Spruce Street
St. Louis, MO 63103-2833
Phone: (314) 331-8583 Fax: (314) 331-8741

If you only have questions regarding the appeal process you may also contact:

Division Engineer
ATTN: David W. Gesl
Administrative Appeals Review Officer
U.S. Army Corps of Engineers
P.O. Box 2870
Portland, OR 97208-2870
Telephone: 503-808-3825

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

| Signature of appellant or agent. David A. Shorr | Date: May 31, 2011 | Telephone number: (573) 893-4336 |
|---|---|---|

**BEFORE THE UNITED STATES ARMY CORPS OF ENGINEERS**
**NORTHWESTERN DIVISION**

**St. Louis District**
**Kansas City District**

**Regarding the Permit Requests of:**

| St. Louis District | USACE File Nos: |
|---|---|
| J.T.R., Inc. (Permits P-2789, P-2339, P-2340, P-2341) | MVS-2011-178, P-2789 |
| Limited Leasing Company (Permits P-2788, P-2342) | MVS-2011-177, P-2788 |
| Kansas City District | |
| Capital Sand Company, Inc. (Permits 2011-361, 2001-1429) | NWK-2011-361 |
| Hermann Sand & Gravel (Permits 2011-362, 2001-1430), | NWK-2011-362 |
| Con-Agg of Missouri, LLC (Permits 2011-364, 2001-1434) | NWK-2011-364 |
| Capital Sand Company, Inc. (Application No. MVC-2008-0093) | MVS-2008-00193 |

**Appeal Conference**:

The Missouri River Dredgers Group requests that the Review Officer conduct an appeal conference in either Jefferson City, Missouri, St. Louis, Missouri, or Kansas City, Missouri.

**Relation of this Appeal to Other Appeals:**

Holliday Sand & Gravel, LLC, a member of the Missouri River Dredgers Group, has filed a separate appeal of the commercial sand dredging permits issued by the United States Army Corps of Engineers ("USACE") on March 31, 2011.

**Relief Requested:**

The Missouri River Dredgers Group requests that the Review Officer reverse the Record of Decision, and grant the Dredgers the tonnage amounts requested in their original permit applications. Alternatively, and at a minimum, the Missouri River Dredgers Group requests that

the Review Officer issue commercial sand dredging permits with tonnage amounts no less than the Dredgers' previously authorized permit levels.

## REQUEST FOR APPEAL

J.T.R, Inc., Limited Leasing Company, Capital Sand Company, Inc., Hermann Sand & Gravel, and Con-Agg of Missouri, LLC (collectively the "Missouri River Dredgers Group" or the "Dredgers"), pursuant to 33 C.F.R. Part 331, submit the following Request for Appeal of the March 31, 2011 Record of Decision ("ROD") prepared by the U.S. Army Corps of Engineers St. Louis and Kansas City Districts and of the individual Permits (collectively the "Permits") issued as a result of the ROD's conclusions. In support of this Request of Appeal, the Missouri River Dredgers identify below the global and individual permitting issues for appeal as to the March 31, 2011 ROD and the Final Environmental Impact Statement ("EIS"), upon which the ROD was based. Additionally, the Dredgers are contemporaneously filing a Memorandum in Support of Request for Appeal, which provides additional argument and support for the issues identified in the Request for Appeal.[1]

[1] Prior to filing this Request for Appeal and Memorandum in Support of the Request for Appeal, the Missouri River Dredgers' Group did not have access to the full and complete administrative record. Within days of receiving the ROD and Permit, the Dredgers collectively requested to review and copy the administrative record from the Kansas City and St. Louis Districts. There appears to be a disagreement between the USACE and the Dredgers as to what comprises the administrative record. The Dredgers maintain that the administrative record likely far exceeds what the USACE has already made available on its public website, and specifically includes internal email and documents developed in the course of the project review by the USACE. Because the administrative record has not been fully accessible, this has impacted the Dredgers' ability to establish errors committed by the USACE. Accordingly, the Dredgers reserve the right to supplement this appeal as other portions of the record become available through these proceedings.

## GLOBAL PERMITTING ISSUES

### I. The Dredgers Appeal The Tonnage Limits Imposed On Each Individual Dredger In The Issued Permits In That The Adoption Of These Limits Is Arbitrary And Capricious And The Limits Are Based On Inaccurate And Incomplete Data.

The calculations and rationale upon which the tonnage limits imposed on each of the individual Dredgers were based upon incorrect or incomplete data. Even more problematic, material data as to the causes of river bed degradation was intentionally omitted from consideration. The USACE has imposed tonnage limits based upon the unsupported and incorrect presumption that long term river bed degradation exists and can be attributed to commercial dredging and that limiting commercial dredging will positively impact river bed degradation. Basing tonnage limits on these improper assumptions without appropriate factual support was arbitrary and capricious.

### II. The Dredgers Appeal The USACE's Adoption And Use Of Segments And Fixed Segment Boundaries For Permitting Purposes And, Specifically, The Imposition Of An Additional Tonnage Limit Within The Specific Segments.

The segment boundaries are arbitrary and bear little to no relation to the risk of degradation, or the operational characteristics of dredging as an industry. The Corps has adopted duplicative and punitive tonnage caps in each of the segments based upon unproven hypotheses of the distribution of "bed load and wash load". Dredgers that hold a permit in more than one segment of the river cannot substitute tonnage from one location to another as the segment limits are absolute fixed boundaries. There appears to be no logical basis behind the restriction of segment tonnage and boundaries, other than to limit dredging overall. The adoption of segment lines is arbitrary, and it is contrary to the USACE's stated policy position of reducing concentrated dredging in areas of the LOMR.

## III. The Dredgers Appeal the Improper Permit Decision the USACE Failed to Consider the USACE-controlled River Structures, Including the BNSP, as Part of the Analysis of the Causes and Contributors to Bed Degradation, Which Has Resulted in Disproportionate Action Against Commercial Dredging.

The data before the USACE is clear that the construction of dams, reservoirs, and other structures that reduce water flow under the Flood Control Act of 1944 and the creation of the Missouri River Bank Stabilization and Navigation Project (BNSP) are major contributors to river bed degradation. The USACE acted arbitrarily by limiting the scope of the EIS and refusing to consider these structures, which are controlled by the USACE, in its analysis of the causes of river bed degradation. Without considering all major causes of bed degradation, it is impossible for the USACE to assign a causal risk relationship due to dredging activities or determine whether reduction in dredging activities will have any significant benefit to reducing bed degradation. By refusing to consider the overall causes, the USACE has failed to take the "hard look" required by NEPA at the environmental effects of the proposed permit action.

## IV. The ROD Impermissibly Piles Assumption Upon Assumption To Reach Its Flawed Alternative Sources Conclusion.

The economic analysis presented in the EIS and carried forward to the ROD, relies on improper assumptions regarding alternative sources for sand. The rationale that the USACE adopts assumes, without evidence, that there are adequate alternative sources for sand in the areas served by the applicants' within the borders of the states of Missouri and Kansas. The USACE assumes that pit mines for sand can be constructed to supplant the decreased production from the river. USACE's determination supplants its public policy presumption in place of that of the Missouri and Kansas General Assemblies and usurps the state police power with that of USACE. The permitting and location of pit mines is a manner for State and local governments and is not the province of the Corps to decide. The presumption fails to consider

that pit mining is unreliable and non-renewable. Further, there is no evidence that such an option would be available or allowed.

The economic analysis also assumes the availability of capacity on the Kansas and Mississippi Rivers to supplement sand supplies lost from Missouri River production reductions. The evaluation ignores evidence submitted by the various parties dredging on those rivers that surplus sands are not available, are not economically viable or in the short or long term able to acquire the necessary permits from the regulatory agencies.

## V. The ROD Failed To Quantitatively Assess The Environmental Impacts Of Its Proposed Alternative Sources Solution.

The decision to impose tonnage caps fails to consider the environmental consequences of an increase in pit mining versus the risk of bed degradation. This violated NEPA's "hard look" requirements, which mandates proper investigation into the increased air pollutants resulting from greater pit mining operations and truck transportation.

## VI. The Continuous Monitoring Requirements Included In The Permits Are Overly Burdensome, Beyond The Scope Of USACE Authority, Bear No Relation To Protecting Any USACE Interest In Dredging, And Violate The Protections Of The Kansas, Missouri and United States Constitutions.

The new permits require all permit holders to run specific monitoring equipment 24 hours a day, 7 days per week and 365 days per year. The dredgers accept that some monitoring is of value to determine location of dredging and volumes of material. The 24/7/365 day requirement is intrusive, conflicts with the powers and authority of the U.S. Coast Guard without such a request from that agency, is beyond the scope of the legal authority of the USACE under the Clean Water Act and the Rivers and Harbor Act, and violates the constitutional protections of the Dredgers. All appropriate information can be gained by monitoring during periods of actual dredging. There is no evidence in the record that the permit

holders have not truthfully and accurately reported their dredging activities and, therefore, no reason for additional monitoring exists.

## VII. There Is No Basis For The USACE's Denial Of A 100% Carryover of Annual Authorized Tonnage.

The ROD's provision restricting the Dredgers to a 10% carryover of their authorized annual tonnage to the next permitted year is unsupported by any facts in the record. Allowing the Dredgers to carryover up to 100% of its allotted tonnage to the following permit year keeps unneeded sand resources in the river and thus promotes the interests of both the Dredgers and the USACE.

## VIII. The USACE's Actions Are Contrary To Federal Constitutional Law In That The USACE, In Restricting The Dredgers' Access To River Bed Material Have Taken A Property Right Without Adequate Compensation.

In restricting the applicants' permits, the USACE presented an argument that the risk of degradation to the riverbed and the surrounding structures is severe. Yet, the USACE has failed or refused, despite requests from members of Congress, to ask for funding to study and/or correct the problems with the river or to revise the BSNP to decrease the risk of degradation. The USACE's position that the risk to the river structures is far from convincing when the USACE is unwilling to examine or alter its own practices to minimize the risk. Further, the notion that the USACE can place the burden on correcting the degradation problem on private industry without adequate compensation potentially infringes on due process rights. The river and the materials in the river are owned by the States of Kansas and Missouri, not the federal government. As such, the analysis fails to consider the impact of or caused by the BSNP, fails to address the issue of property rights in the river, and fails to meet the requirements of NEPA and Executive Order 12630.

**IX. The USACE Uses And Relies Upon Unpublished Data And Sources In The ROD And The EIS. The Inclusion Of Such Material, Which Is Not Available To The Dredgers And Is Not Subject To External Analysis Or Peer Review, Is Arbitrary And Capricious And Contrary To Law.**

The ROD and EIS are flawed because of their extensive reliance on unpublished data and sources, which are not peer reviewed are not subject to any external analysis by the Dredgers or others.

**X. The Amount Of Tonnage Reduced In Many Of The Permits Is So Limited That It Cannot Be Measured To Demonstrate Or Determine An Impact On The River Bed. The Inability To Determine A Specific Impact By A Proposed Cut In Production Renders The Action Speculative And Pure Conjecture, And Therefore Arbitrary.**

While the proposed cuts will have devastating effects to the Dredgers' businesses, the USACE lacks sufficient data to demonstrate, with any reasonable level of certainty, that the proposed cuts to commercial dredging will have any measurable effect on the LMOR as a whole.

## INDIVIDUAL PERMITTING ISSUES

### I. J.T.R., INC., PERMIT NO. P-2789

Limited operates a contracting dredging operation in the St. Charles segment.

**A. The tonnage available in the permit can and should be increased.**

Global Issue 1 is hereby incorporated by reference. Adequate tonnage exists in the lower river to support the request of the applicant. The decision by the USACE in limiting the tonnage in the permit was arbitrary, capricious, and based on insufficient and incorrect data.

**B. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional.**

Global Issue 6 is hereby incorporated by reference. Based upon the monitoring theory presented J.T.R. boats and equipment would be required, under this Missouri River permit, to report activities and operations on the Mississippi River. No such requirements exist in any

Mississippi River dredging permit. The Mississippi River is outside the jurisdiction of this action and the jurisdiction of this ROD for the Missouri River. This provision requiring "tracking" of boats and dredges is outside the legal authority of USACE and wholly vested in the Coast Guard legal domain. This provision is also unconstitutional as more fully stated in Global Issue 6.

**C. The segment amount is arbitrary and capricious, and its distribution and allocation unreasonable.**

Global Issue 2 is hereby incorporated by reference. In addition to the Global Issue, segment limits in the St. Charles segment inappropriately advance beyond District jurisdictional boundaries creating confusing and differential regulatory positions by the Kansas City District and the St. Louis District. Multiple applicants are forced to overlap operations and "regulate" competitors operations in the segment.

**D. The amount of tonnage at the mouth of the Missouri River and reaches allocated to this permit are underestimated.**

Global Issue 1 is hereby incorporated by reference. The mouth of the river and its interface with the Mississippi River is treated the same as all other areas of the river. The sediment deposition, bed load, hydrology and hydraulics are vastly different than any other portion of the river providing material in excess of the amounts indicated in the ROD and EIS.

**E. The permit decision fails to take into account the impact of the Bank Stabilization and Navigation Project.**

Global Issue 3 is hereby incorporated by reference.

**F. The permit's limitation of 300,000 tons per 5-mile reach is arbitrary.**

Global Issues 1 and 2 are hereby incorporated by reference.

## II. LIMITED LEASING COMPANY, PERMIT NO. P-2788

Limited operates a contracting dredging operation in the St. Charles segment.

### A. The tonnage available in the permit can and should be increased.

Global Issue 1 is hereby incorporated by reference. Adequate tonnage exists in the lower river to support the request of the applicant. The decision by the USACE in limiting the tonnage in the permit was arbitrary, capricious, and based on insufficient and incorrect data.

### B. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional.

Global Issue 6 is hereby incorporated by reference. Based upon the monitoring theory presented Limited Leasing boats and equipment would be required, under this Missouri River permit, to report activities and operations on the Mississippi River. No such requirements exist in any Mississippi River dredging permits. The Mississippi River is outside the jurisdiction of this action and the jurisdiction of this ROD for the Missouri River. This provision requiring "tracking" of boats and dredges is outside the legal authority of USACE and wholly vested in the Coast Guard legal domain. This provision is also unconstitutional as more fully stated in Global Issue 6.

### C. The segment amount is arbitrary and capricious, and its distribution and allocation unreasonable.

Global Issue 2 is hereby incorporated by reference. In addition to the Global Issue, segment limits in the St. Charles segment inappropriately advance beyond District jurisdictional boundaries creating confusing and differential regulatory positions by the Kansas City District and the St. Louis District. Multiple applicants are forced to overlap operations and "regulate" competitors operations in the segment.

**D. The amount of tonnage at the mouth of the Missouri River and reaches allocated to this permit are underestimated.**

Global Issue 1 is hereby incorporated by reference. The mouth of the river and its interface with the Mississippi River is treated the same as all other areas of the river. The sediment deposition, bed load, hydrology and hydraulics are vastly different than any other portion of the river providing material in excess of the amounts indicated in the ROD and EIS.

**E. The permit decision fails to take into account the impact of the Bank Stabilization and Navigation Project.**

Global Issue 3 is hereby incorporated by reference.

**F. The permit's limitation of 300,000 tons per 5-mile reach is arbitrary.**

Global Issues 1 and 2 are hereby incorporated by reference.

## III. CAPITAL SAND COMPANY, INC., PERMIT NOS. 2011-361, 2001-1429 & MVC-2008-0093

Capital Sand operates and is permitted in the St. Charles, Jefferson City and Waverly segments. They operate sand off loading docks, storage and processing facilities in Washington, Jefferson City, Boonville, Glascow, Carrollton, Brunswick, and Lexington, Missouri.

**A. Adequate tonnage exists to meet the applicant's request at Washington, Missouri, and in the St. Charles segment. The failure to allow the applicant's request was arbitrary and capricious in that it was not based on accurate or complete data.**

Global Issue 1 is hereby incorporated by reference. Adequate tonnage exists is this section of the river to support the applicant's request. The decision by the USACE in limiting the tonnage in the permit was arbitrary, capricious, and based on insufficient and incorrect data.

**B. Adequate tonnage exists to allow the applicant's request in the Jefferson City segment. The failure to allow the applicant's request was arbitrary and capricious in that it was not based on accurate or complete data.**

Global Issue 1 is hereby incorporated by reference. Adequate tonnage exists is this section of the river to support the applicant's request. The decision by the USACE in limiting the tonnage in the permit was arbitrary, capricious, and based on insufficient and incorrect data.

**C. Adequate tonnage exists to allow for the applicant's request in the Waverly segment. The failure to allow the applicant's request was arbitrary and capricious in that it was not based on accurate or complete data.**

Global Issue 1 is hereby incorporated by reference. Adequate tonnage exists is this section of the river to support the applicant's request. The decision by the USACE in limiting the tonnage in the permit was arbitrary, capricious, and based on insufficient and incorrect data. The Waverly segment is aggrading and has surplus material. There is no basis to deny the applicants request.

**D. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional.**

Global Issue 6 is hereby incorporated by reference.

**E. The USACE's assumption that there are alternative sources of sand available is based on inaccurate information. The USACE failed to complete an adequate analysis to determine if material exists to meet the needs and to determine the environmental impact of acquiring sand from other sources.**

Global Issues 4 and 5 are hereby incorporated by reference.

**F. The impact of the reductions provided in the above permits cannot be accurately measured to determine their direct impacts. The assumption that the reduction will have any correlation to river bed degradation lacks any basis in scientific data, making the decision arbitrary.**

Global Issue 10 is hereby incorporated by reference.

**G. The permit decision fails to take into account the impact of the Bank Stabilization and Navigation Project. The decision to omit the analysis of the BNSP was arbitrary and capricious and a direct violation of NEPA.**

Global Issue 3 is hereby incorporated by reference.

**H. Specific denial of Capital Sand's Washington, Missouri permit (MVC-2008-0093).**

The St. Louis District had sufficient tonnage to allow the applicant's request. The failure to allow the applicant's request was arbitrary and capricious in that it was not based on accurate or complete data. The denial is attached hereto as **Exhibit A** and made part hereof.

## IV. HERMANN SAND & GRAVEL, LLC, PERMIT NOS. 2011-362 & 2001-1430

Hermann Sand operates and is permitted in the St. Charles and Jefferson City segments. They operate sand off loading docks, storage and processing facilities in Hermann and Jefferson City, Missouri.

**A. Adequate material and tonnage exists to fully support applicant's previous amounts and additional tonnage. The failure to allow the applicant's request was arbitrary and capricious in that it was not based on accurate or complete data.**

Global Issue 1 is hereby incorporated by reference. Adequate tonnage exists is this section of the river to support the applicant's request. The decision by the USACE in limiting the tonnage in the permit was arbitrary, capricious, and based on insufficient and incorrect data.

**B. The impact of the reductions provided in the above permits cannot be accurately measured to determine their direct impacts. The assumption that the reduction will have any correlation to river bed degradation lacks any basis in scientific data, making the decision arbitrary.**

The applicant's tonnage was reduced by 60,000 tons total, split between two segments. The ability to measure the impact of such small amounts of material on the bed of one of the nation's largest waterways and drainage areas and has not been demonstrated by USACE.

**C. Placement of the segment line between the company's operations is arbitrary in nature creates an effective additional reduction in tonnage.**

The applicant's previous permits allowed for total tonnage to be split between its Jefferson City and Hermann sand plants. The segment line restricts the ability to continue such a practice with no justification in the record of the ability to measure such insignificant amounts.

**D. The amount of tonnage in the Jefferson City and St. Charles segments is so negligible that it should be exempted from all other permit conditions.**

Global Issue 10 is hereby incorporated by reference.

**E. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional.**

Global Issue 6 is hereby incorporated by reference.

## V. CON-AGG OF MISSOURI, LLC, PERMIT NOS. 2011-364 & 2001-1434

**A. Adequate material and tonnage exists to fully support applicant's previous amounts and additional tonnage. The failure to allow the applicant's request was arbitrary and capricious in that it was not based on accurate or complete data.**

Global Issue 1 is hereby incorporated by reference. Adequate tonnage exists is this section of the river to support the applicant's request. The decision by the USACE in limiting the tonnage in the permit was arbitrary, capricious, and based on insufficient and incorrect data.

**B. The impact of the reductions provided in the above permits cannot be accurately measured to determine their direct impacts. The assumption that the reduction will have any correlation to river bed degradation lacks any basis in scientific data, making the decision arbitrary.**

The applicant's tonnage was reduced by 15,000 tons. The ability to measure the impact of such small amounts of material on the bed of one of the nation's largest waterways and drainage areas and has not been demonstrated by USACE

**C. The amount of tonnage in the Jefferson City and St. Charles segments is so negligible that it should be exempted from all other permit conditions.**

Global Issue 10 is hereby incorporated by reference.

**D. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional.**

Global Issue 6 is hereby incorporated by reference.

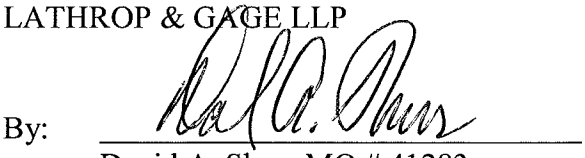
## CONCLUSION

For all of the reasons set forth above and in the contemporaneously-filed Memorandum in Support of Request for Appeal, the Record of Decision's proposed commercial sand dredging permits are arbitrary and capricious, and contrary to law. Accordingly, the Missouri River Dredgers Group respectfully asks the Review Officer to reverse the Record of Decision, and grant the Dredgers the tonnage amounts requested in their original applications. Alternatively, and at a minimum, the Missouri River Dredgers Group requests that the Review Officer issue commercial sand dredging permits with tonnage amounts no less than the Dredgers' previously authorized permit levels. Finally, the Missouri River Dredgers Group requests such other and further relief as the Review Officer deems fair, just and equitable.

Dated: May 31, 2011

Respectfully submitted,

LATHROP & GAGE LLP

By: 

David A. Shorr MO # 41283
dshorr@lathropgage.com
314 E. High Street
Jefferson City, MO 65101
Telephone: (573) 893-4336
Telecopier: (573) 893-5398

and

Carrie E. Josserand MO #50692
cjosserand@lathropgage.com
Matthew K. Corbin KS # 21321
mcorbin@lathropgage.com
Building 82, Suite 1000
10851 Mastin Boulevard
Overland Park, KS 66210-1669
Telephone: (913) 451-5100
Telecopier: (913) 451-0875

*Attorneys for the Missouri River Dredgers Group*

**DEPARTMENT OF THE ARMY**
**ST. LOUIS DISTRICT, CORPS OF ENGINEERS**
**1222 SPRUCE STREET**
**ST. LOUIS, MISSOURI 63103-2833**

REPLY TO
ATTENTION OF:

APR 12 2011

Regulatory Branch
(MVS-2008-00193)

Mr. Ray Bohlken
Capitol Sand Company, Inc.
P.O. Box 104990
Jefferson City, Missouri 65110-4990

Dear Mr. Bohlken:

This letter concerns your application No. MVS-2008-00193, dated March 21, 2008, requesting Department of the Army (DA) permit authorization to extract up to 500,000 tons of sand and gravel per year from the Missouri River between river miles 40 and 50 with a mobile, floating, hydraulic suction dredge plant.

I have reviewed the recently completed Final EIS for Missouri River Commercial Dredging (Final EIS), the Record of Decision (ROD) and all other available information regarding your current proposal along with the proposals of other commercial sand dredgers on the Missouri River. I have concluded that authorization of dredging from the lower 50 miles of the Missouri River in excess of the annual tonnage of aggregate outlined in the Least Environmentally Damaging Practicable Alternative (LEDPA) of the ROD, would result in unacceptable impacts on the aquatic environment of the Missouri River. I have determined that issuance of any permits for extraction of aggregate in excess of the LEDPA annual tonnage would be contrary to the public interest because less environmentally damaging practicable alternatives are available which would meet the objectives of your proposed dredging. Annual extraction and past authorized amounts have exceeded the LEDPA annual tonnage in recent years so even the currently authorized dredgers face reduced extraction limits, hence, there is no additional available tonnage. Therefore, I am denying your request for authorization to extract up to 500,000 tons of sand and gravel per year from the Missouri River between river miles 40 and 50.

Please note that the Corps of Engineers has published an administrative appeal regulation at 33 Code of Federal Regulations (C.F.R.) 331. The purpose of this regulation is to establish administrative appeals policies and procedures for final Corps of Engineers' geographic jurisdictional determinations and permit denials with prejudice. The appeals process allows you to pursue an administrative appeal of a final Corps of Engineers' decision or determination with which you disagree. The Final EIS and Record of Decision used to evaluate your proposed activity can be viewed and downloaded at:
http://www.nwk.usace.army.mil/regulatory/Dredging/MO/MOdredging.htm.

EXHIBIT
tabbies
A

Printed on Recycled Paper

This letter contains a permit denial for your commercial dredging permit application. If you object to this decision, you may request an administrative appeal under Corps regulations at 33 C.F.R. Part 331. Enclosed you will find a Notification of Administrative Appeal Options and Process (NAP) and Request for Appeal (RFA) form. If you request to appeal this decision you must submit a completed RFA form to the Northwestern Division Office at the following address:

Division Engineer
ATTN: David W. Gesl
Administrative Appeals Review Officer
U.S. Army Corps of Engineers
P.O. Box 2870
Portland, OR 97208-2870
Telephone: 503-808-3825

In order for an RFA to be accepted, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 C.F.R. Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by May 31, 2011.

It is not necessary to submit an RFA form to the Division Office if you do not object to the decision in this letter.

The St. Louis District Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete the enclosed postage paid card or go to our Customer Service Survey found on our web site at http://per2.nwp.usace.army.mil/survey.html.

If you have any questions concerning this matter, please contact Mr. Charles Frerker at 314-331-8583.

Sincerely,

Thomas E. O'Hara, Jr.
Colonel, U.S. Army
District Commander

Enclosure

**BEFORE THE UNITED STATES ARMY CORPS OF ENGINEERS**
**NORTHWESTERN DIVISION**

**St. Louis District**
**Kansas City District**

**Regarding the Permit Requests of:**

| St. Louis District | USACE File Nos: |
|---|---|
| J.T.R., Inc. (Permits P-2789, P-2339, P-2340, P-2341) | MVS-2011-178, P-2789 |
| Limited Leasing Company (Permits P-2788, P-2342) | MVS-2011-177, P-2788 |
| Kansas City District | |
| Capital Sand Company, Inc. (Permits 2011-361, 2001-1429) | NWK-2011-361 |
| Hermann Sand & Gravel (Permits 2011-362, 2001-1430), | NWK-2011-362 |
| Con-Agg of Missouri, LLC (Permits 2011-364, 2001-1434) | NWK-2011-364 |
| Capital Sand Company, Inc. (Application No. MVC-2008-0093) | MVS-2008-00193 |

# MEMORANDUM IN SUPPORT OF REQUEST FOR APPEAL

## TABLE OF CONTENTS


INTRODUCTION ..... 1

STANDARD OF REVIEW ..... 2

GLOBAL PERMITTING ISSUES ..... 3

I. The Dredgers Appeal The Tonnage Limits Imposed On Each Individual Dredger In The Issued Permits In That The Adoption Of These Limits Is Arbitrary And Capricious And The Limits Are Based On Inaccurate And Incomplete Data. ..... 3

A. The USACE lacked data to conclude that limiting dredging will effect overall bed degradation. ..... 3

B. The analysis of bed loads in the EIS is flawed. ..... 5

C. The drafters of the EIS rely on inaccurate measurements and methods to conclude that commercial dredging leads to localized bed degradation. ..... 7

D. The tonnage caps on dredging based on bed load are unreliable and arbitrary. ..... 9

E. The USACE can protect at risk areas while allowing sufficient tonnage. ..... 11

II. The Dredgers Appeal The USACE's Adoption And Use Of Segments And Fixed Segment Boundaries For Permitting Purposes And, Specifically, The Imposition Of An Additional Tonnage Limit Within The Specific Segments. ..... 13

III. The Dredgers Appeal the Improper Permit Decision the USACE Failed to Consider the USACE-controlled River Structures, Including the BSNP, as Part of the Analysis of the Causes and Contributors to Bed Degradation, Which Has Resulted in Disproportionate Action Against Commercial Dredging. ..... 15

IV. The ROD Impermissibly Piles Assumption Upon Assumption To Reach Its Flawed Alternative Sources Conclusion. ..... 25

A. The proposed short-term solutions are unfounded. ..... 25

1. Kansas and Mississippi Rivers. ..... 26

2. Floodplain open pit mines, instream mining and manufactured sand. ..... 28

i. Open-pit mining operations. ..... 28

ii. Instream mining activity. ..... 31

iii. Manufactured sand. ..... 31

B. The proposed long-term solutions are based on pure speculation. ..... 32

C. The USACE's trucking and hauling presumptions are inaccurate. ..... 34

D. The USACE disregards the sand and gravel distinction. ..... 35

E. The economic impact of the EIS is not hypothetical. ..... 35

V. The ROD Failed To Quantitatively Assess The Environmental Impacts Of Its Proposed Alternative Sources Solution. ..... 36

A. DPM emissions were not evaluated. ..... 37

B. GHG emission were not evaluated. ..... 38

VI. The Continuous Monitoring Requirements Included In The Permits Are Overly Burdensome, Beyond The Scope Of USACE Authority, Bear No Relation To Protecting Any USACE Interest In Dredging, And Violate The Protections Of The Kansas, Missouri and United States Constitutions. ..... 40

VII. There Is No Basis For The USACE's Denial Of A 100% Carryover of Annual Authorized Tonnage ..... 42

VIII. The USACE's Actions Are Contrary To Federal Constitutional Law In That The USACE, In Restricting The Dredgers' Access To River Bed Material Have Taken A Property Right Without Adequate Compensation. ..... 45

IX. The USACE Uses And Relies Upon Unpublished Data And Sources In The ROD And The EIS. The Inclusion Of Such Material, Which Is Not Available To The Dredgers And Is Not Subject To External Analysis Or Peer Review, Is Arbitrary And Capricious And Contrary To Law. ..... 47

X. The Amount Of Tonnage Reduced In Many Of The Permits Is So Limited That It Cannot Be Measured To Demonstrate Or Determine An Impact On The River Bed. The Inability To Determine A Specific Impact By A Proposed Cut In Production Renders The Action Speculative And Pure Conjecture, And Therefore Arbitrary. ..... 48

INDIVIDUAL PERMITTING ISSUES ..... 49

I. J.T.R., INC., PERMIT NO. P-2789 ..... 49

A. The tonnage available in the permit can and should be increased. ..... 49

B. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional. ..... 50

C. The segment amount is arbitrary and capricious, and its distribution and allocation unreasonable. ..... 50

D. The amount of tonnage at the mouth of the Missouri River and reaches allocated to this permit are underestimated. ..... 51

E. The permit decision fails to take into account the impact of the Bank Stabilization and Navigation Project. ..... 51

F. The permit's limitation of 300,000 tons per 5-mile reach is arbitrary. ..... 51

II. LIMITED LEASING COMPANY, PERMIT NO. P-2788 ..... 51

A. The tonnage available in the permit can and should be increased. ..... 51

B. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional. ..... 52

C. The segment amount is arbitrary and capricious, and its distribution and allocation unreasonable. ... 52

D. The amount of tonnage at the mouth of the Missouri River and reaches allocated to this permit are underestimated. ... 52

E. The permit decision fails to take into account the impact of the Bank Stabilization and Navigation Project. ... 53

F. The permit's limitation of 300,000 tons per 5-mile reach is arbitrary. ... 53

III. CAPITAL SAND COMPANY, INC., PERMIT NOS. 2011-361 & 2001-1429 ... 53

A. Adequate tonnage exists to meet the applicant's request at Washington, Missouri, and in the St. Charles segment. The USACE's refusal to allow Capital Sand's request for tonnage was arbitrary and capricious in that it was not based on accurate or complete data. ... 53

B. Adequate tonnage exists to allow the applicant's request in the Jefferson City segment. The failure to allow the applicant's request was arbitrary and capricious in that it was not based on accurate or complete date. ... 54

C. Adequate tonnage exists to allow the applicant's request in the Waverly segment. The failure to allow applicant's request was arbitrary and capricious in that it was not based on accurate or complete date. ... 54

D. The monitoring provision relating to 24/7, 365 days per year is unreasonable and unconstitutional. ... 55

E. The USACE assumption that there are alternative sources of sand available is based on inaccurate information. The USACE failed to complete an adequate analysis to determine if material exists to meet the needs and to determine the environmental impact of acquiring sand from other sources. ... 55

F. The impact of the reductions provided in the above permits cannot be accurately measured to determine their direct impacts. The assumption that the reduction will have any correlation to river bed degradation lacks any basis in scientific data, making the decision arbitrary. ... 56

G. The permit decision fails to take into account the impact of the Bank Stabilization and Navigation Project. The decision to omit the analysis of the BSNP was arbitrary and capricious and a direct violation of NEPA. ... 56

H. Specific denial of Capital Sand's Washington, Missouri permit by the St. Louis District. ... 56

IV. HERMANN SAND & GRAVEL, LLC, PERMIT NOS. 2011-362 & 2001-1430 ... 57

A. Adequate material and tonnage exists to fully support applicant's previous amounts and additional tonnage. The failure to allow the applicant's request was arbitrary and capricious in that it was not based on accurate or complete data. ... 57

B. The impact of the reductions provided in the above permits cannot be accurately measured to determine their direct impacts. The assumption that the reduction will have any correlation to river bed degradation lacks any basis in scientific data, making the decision arbitrary. ..... 58

C. Placement of the segment line between the company's operations is arbitrary in nature and creates an effective additional reduction in tonnage. ..... 58

D. The amount of tonnage in the Jefferson City and St. Charles segments is so negligible that it should be exempted from all other permit conditions..... 59

E. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional. ..... 59

V. CON-AGG OF MISSOURI, LLC, PERMIT NOS. 2011-364 & 2001-1434 ..... 59

A. Adequate material and tonnage exists to fully support Con-Agg's previous amounts and additional tonnage. The failure to allow Con-Agg's request was arbitrary and capricious in that it was not based on accurate or complete data. ..... 59

B. The impact of the reductions provided in the above permits cannot be accurately measured to determine their direct impacts. The assumption that the reduction will have any correlation to river bed degradation lacks any basis in scientific data, making the decision arbitrary. ..... 60

C. The amount of tonnage in the Jefferson City segments is so negligible hat it should be exempted from all other permit conditions. ..... 60

D. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional. ..... 60

CONCLUSION ..... 60

## INTRODUCTION

There are six companies that comprise the Missouri River Dredgers Group: J.T.R, Inc., Limited Leasing Company, Capital Sand Company, Inc., Hermann Sand & Gravel, Con-Agg of Missouri, LLC, and Holliday Sand & Gravel, LLC (collectively the "Missouri River Dredgers" or the "Dredgers"). Together, these companies dredge 100 percent of the commercial sand on the Missouri River. Without question commercial sand dredging plays a critical role on the Missouri River. Dredging yields significant benefits to the citizens of the State of Missouri, providing a high quality, low cost product which helps build roads, homes and infrastructure within the State, as well as valuable jobs to residents in numerous communities. While commercial sand is the Dredgers' livelihood, the resource has far-reaching impacts throughout the regional economy.

On March 31, 2011, the United States Army Corp of Engineers ("USACE") issued its Record of Decision ("ROD"), arbitrarily narrowing the availability of commercial sand on the Missouri River. The ROD, in conjunction with the final Environmental Impact Statement ("EIS"), imposed illogical tonnage limits on permits based on uniformed standards; unilaterally adopted segments with no relationship to the risk of bed degradation; improperly ignored the Missouri River Bank Stabilization and Navigation Project's ("BSNP") significant role in causing bed degradation to the detriment of the Dredgers; offered flawed assumptions about the availability of alternate sources of sand and gravel; exceeded its authority in requiring continuous 24/7 monitoring of the Dredgers' operations; unlawfully deprived the States of Kansas and Missouri access to their own natural resources; and underestimated, and in some cases disregarded, the economic and environmental consequences of reducing dredging operations on the Missouri River.

Although the Dredgers certainly understand that the USACE is responsible for managing the Missouri River, its permitting decisions must still be based on concrete facts obtained after conducting a thorough and objective investigation. Whether the Dredgers' appellate issues are viewed independently or in totality, the ROD and its associated permitting decisions cannot withstand any level of scrutiny, let alone an arbitrary and capricious review.

**STANDARD OF REVIEW**

The Review Officer ("RO") "will conduct an independent review of the administrative record to address the reasons for the appeal cited by the applicant in the RFA." 33 C.F.R. § 331.3. "In addition, to the extent that it is practicable and feasible, the RO will also conduct an independent review of the administrative record to verify that the record provides an adequate and reasonable basis supporting the district engineer's decision, that facts or analysis essential to the district engineer's decision have not been omitted from the administrative record, and that all relevant requirements of law, regulations, and officially promulgated Corps policy guidance have been satisfied."

Agency action is unlawful and may be set aside if it is arbitrary, capricious, an abuse of discretion, not supported by substantial evidence in the administrative record, or otherwise contrary to a law, regulation, executive order, constitutional right, or officially promulgated USACE policy. 5 U.S.C. § 706; 33 C.F.R. § 331.9(b). A decision is arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise. *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.,* 463 U.S. 29, 43 (1983).

## GLOBAL PERMITTING ISSUES

### I. The Dredgers Appeal The Tonnage Limits Imposed On Each Individual Dredger In The Issued Permits In That The Adoption Of These Limits Is Arbitrary And Capricious And The Limits Are Based On Inaccurate And Incomplete Data.

In the March 31, 2011 ROD, the USACE considered and imposed certain tonnage limits that would restrict how much material each of the Dredgers may remove from each segment of the LOMR in which that Dredger holds a permit. In the proposed Permits, the USACE effectively adopted two caps on the amount of material that may be taken from the river. First, the USACE adopted a segment limit, which limits all commercial dredging in each segment to a percentage of the USACE's estimate of how much material the river purportedly holds. Second and in addition, the USACE adopted a limit in certain areas of the LOMR that the USACE views as vulnerable to over dredging. These limits provide that, in protected areas, the Dredgers may not remove more than 300,000 tons of material per year per five mile stretch.

The adoption of the dual tonnage limits is arbitrary in that the caps are based on inaccurate information and conclusory findings. The USACE has embraced these caps under the unproven assumption that commercial dredging is the cause of river degradation. The USACE then assumes, without any data in support, that limiting commercial dredging will lessen or eliminate bed degradation. The USACE arbitrarily adopted these overly conservative caps on dredging even when its own data demonstrates that the LOMR will yield much more material than the proposed Permits would allow.

#### A. The USACE lacked data to conclude that limiting dredging will effect overall bed degradation.

In the ROD, USACE asserts that dredging leads to overall bed degradation without sufficient analysis or evidence to support that conclusion. The EIS, which was paid for by the Dredgers as a condition for seeking these permits, acknowledges, but refuses to consider, that

there are other substantial factors that contribute to the perceived bed degradation in the LOMR. The drafters of the EIS make the faulty presumption, which is eagerly adopted by the USACE, that the issue of bed degradation can be controlled or even alleviated by limiting commercial dredging operations. There is no support for this presumption in the record.

The drafters of the EIS attempted to calculate the capacity of the LOMR for commercial dredging operations and then translated these numbers into an acceptable limit, as measured by annual tons, for commercial dredging in each segment. The source of these calculations is not clear from either the ROD or the EIS, but appears that the drafters compared estimates of the bed load of the LOMR in 2007 to the average amount taken by the Dredgers over the years 1998 and 2007. ROD (2-16). The observation taken in the ROD is that this comparison demonstrates that areas with *acute* river bed degradation show concentrated dredging of 46-53% of the estimated bed load, while in areas with slight or stable degradation, dredging was limited to 10% of the estimated bed load. ROD (2-7). From this point, the ROD makes the leap in logic that *overall* bed degradation can be controlled by limiting the dredging intensity as a percentage of the bed load dredged. This simplistic approach ignores the very different characteristics of each of the segments. The drafters of the EIS were obligated to rely on this correlation methodology rather than to develop an actual sediment model. Without a reliable sediment model, however, it is impossible to predict the effects of varying levels of dredging over hundreds of miles of diverse river and the EIS must be viewed as inconclusive – answering many questions, but answering none. In light of the lack of any scientific certainty, the ROD's strict adherence to the EIS Preferred Alternatives, and the decision to impose strict tonnage limits on commercial dredging, is arbitrary and capricious in that it is based on insufficient and inconclusive information.

**B. The analysis of bed loads in the EIS is flawed.**

Further, the analysis of the bed loads of the LOMR is flawed and based on inaccurate data. The drafters of the EIS admit that the USACE's knowledge about the Missouri River is incomplete. EIS (ES-6). There is a lack of sufficient data available regarding the sediment loads of the river over the time period, so those values must be estimated. EIS (Appendix A, A.4). The estimates were taken from data taken in 2007 from gage sites in St. Joseph, Kansas City, and Hermann. EIS (Appendix A, A.4.2). Loads in the other two segments were estimated based on the readings from the other segments. *Id.* As pointed out by Charles Patterson, the engineer that commented on the EIS on behalf of the Dredgers, this initial analysis in the EIS is based upon inappropriate hydrologic and geomorphologic presumptions and analysis. C. Patterson comment letter ("Patterson"), March 22, 2011.

The first flaw in the bed load analysis is the comparison of a ten year average of the Dredgers' output to the estimated load measured for one particular year (2007). Comparing the river as it existed at one point in time to dredging over a ten-year span (1998-2007), lends no relevant information. Water flow levels vary greatly from year to year, even month to month, which the EIS's analysis does not take into account. Patterson, March 22, 2011. To establish any correlation between dredging practices and flow amounts, the authors of the EIS would have needed to compare annual dredging numbers with the measurement of the river for the correlating year. Patterson, March 22, 2011. As the USACE admits, it lacks the information to make such a comparison.

Further, the choice to use 2007 flow numbers to estimate the capacity of the LOMR, rather than available numbers from 2009, was arbitrary. Historical data indicates that the 2009 data more accurately represents the historical flow rates for the river. Patterson, March 22, 2011. 2007 marked the last of seven years of record low river levels caused by drought. EIS (3.4.4).

Higher water flow levels create more material in the river. Patterson, March 22, 2011. By electing to use the historically low 2007 numbers, the USACE has intentionally underestimated the bed load in the river, and has then used these numbers to bolster this attempt to curtail commercial dredging on the LOMR.

The USACE conducted a similar analysis of bed loads in 1999 when it was considering removing 3.5 million cubic yards of material from the river to construct a levee. The EIS acknowledges that the estimates of bed loads of the LOMR were much greater than the current numbers. EIS (Appendix A, A.5.2). The EIS tries to explain the discrepancy by stating that in 1999, the Corps included larger material in its bed load analysis. *Id.* More accurately, the comparison demonstrates that the USACE estimates the capacity of the river differently when it serves the purpose of its own projects.

The second flaw in the bed load analysis is that there is simply more material in the LOMR than the drafters of the EIS or the USACE are admitting. The data in figure 3.4-22 in the final EIS shows that there was actually *aggradation* of the 500 mile length of the river for the time periods of 1998 to 2007 and 1998 to 2009. Patterson, March 22, 1011. In addition, the EIS estimates that an additional 37 million tons of sediment (mostly sands) could be a released each year as the result of restoration projects that are ongoing and/or planned for the LOMR under the Missouri River Recovery Plan ("MRRP").[1] EIS (3.2.3). The EIS notes that this upswing in

---

[1] The MRRP is an ongoing effort by the USACE, authorized by Congress, to comply with the 2003 Amended 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 (BIOP) developed with the U.S. Fish and Wildlife Service. The MRRP is the implementing program to comply with the Endangered Species Act in an effort to preserve the endangered pallid sturgeon in the LOMR. The MRRP is required to develop shallow water habitat (chutes and other still water structures) to enhance pallid sturgeon propagation and recovery. These projects are estimated to provide 37 million tons of sediment related materials to the LOMR over the 15 years of implementation. The 2012 Presidents Budget for the MRRP is between $70 and $80 million. By contrast, the USACE funding in the 2012 Presidents Budget for maintenance and improvement of the BSNP on the LOMR is $3.5 million.

sediment may last only fifteen years because the river is expected to reach equilibrium after construction. EIS (3.2.3). This limitation, however, is irrelevant to the current permits, which are only five years in, length and, frankly represents the only long-term consideration found in the EIS. If this additional material is in the river and is there for the taking, denying access to the Dredgers is arbitrary. Overall, the data that the EIS relies on to support its conclusion that the bed is degrading is incomplete and the EIS failed to determine whether the LOMR was aggrading or degrading overall. Patterson, March 22, 2011.

### C. The drafters of the EIS rely on inaccurate measurements and methods to conclude that commercial dredging leads to localized bed degradation.

The EIS's attempt to link commercial dredging to localized river degradation is also contrived. The drafters of the EIS attempted to measure river bed levels in the areas where commercial dredgers were most active and to determine which of those areas of the river were more degraded than others. The conclusions of this study are flawed, however, because of the method that the drafters used to measure the river. The measurements of the water levels were taken during active dredging season, meaning that the Dredgers' boats were out on the LOMR, excavating material. It is predictable that when a dredge barge removes material from a location along the river bed, the bed will be lower, at least for some time. The dynamics of the river are such, however, that over a short period of time, river material will fill in the dredge holes. Multiple investigations have shown that the bed will quickly recover from dredging activities. Measuring the bed during active dredging season creates a likelihood that the measurements included at least some active or recently active dredge holes, which had not had time to fill in. This likelihood skews the results and suggest localized degradation when, in fact, none exists. Patterson, March 22, 2011. To appropriately measure localized degradation, the analysis should be performed when the river is at stasis.

Another flaw in the localized bed degradation analysis is that drafters used the actual length of the permitted reach, rather than what was actually dredged, to form their measurements. This method would attribute any degradation in the reach to commercial dredging, whether or not there had been dredging activities in the area. An example of this is the Kansas City reach, where an area of maximum degradation, river mile 385, is actually several miles above from where Holliday actually dredges, although the company is permitted in the area. The degradation there is automatically attributed to dredging activities when, in fact, the area has not been dredged. This is yet another example of how the USACE's correlations lack any actual causation.

The Drafters of the EIS studied historical dredging data local bed elevations and came to the conclusion that "dredging up to approximately 60,000 tons/mile/year is a level of local dredging intensity that is reasonably unlikely (95% certain) to result in local bed degradation." EIS (2-90); ROD (4-14). The Drafters determined that reducing dredging to the level of 30,000 tons/mile/year would be certain to result in no further degradation. EIS (3.4-99). These calculations were again limited to 1998-2007 levels to exclude what the USACE deemed "above average" water flows, but what historical data suggests is far closer to average. *See* EIS (3.4.-35); Patterson, March 22, 2011.

While the Dredgers contend that the analysis is flawed and the conclusions as to the existence and extent of localized bed degradation are exaggerated, the Dredgers have agreed that some limits on concentrated dredging are appropriate. For this reason, the Dredgers do not challenge the imposition of the 300,000 tons/year per five mile limitation on areas where the USACE has determined that past dredging appears to be too concentrated. What the Dredgers challenge as arbitrary, however, is the imposition of the segment caps in addition to this number,

which, in effect, prohibit the Dredgers from taking material that, by the USACE's own numbers, is available, to meet the Dredgers' *current* needs.

### D. The tonnage caps on dredging based on bed load are unreliable and arbitrary.

The ROD concludes that that, because there has been less measurable degradation in areas of the LOMR where the commercial dredgers have removed a smaller percentage of the theoretical bed loads, then limiting dredging to a smaller percentage of these purported loads will hold degradation at bay. This theory has not been tested. There has been no scientific analysis in the record or otherwise to demonstrate that that these limits will have any effect of slowing bed degradation in the impacted areas of the LOMR.

The ROD acknowledges that the USACE's knowledge of the LOMR and the causes of bed degradation is incomplete. ROD (4-14). The USACE's recent Reconnaissance Study (USACE 2009b) concluded that further study of the causes and contributors to degradation in the LOMR is needed. ROD (3-33). The USACE has requested millions of dollars and several years to complete this analysis. Yet, in this permit process, it has arbitrarily determined that it can pinpoint the cause of river bed degradation and compromise a private industry in doing so when it has no evidence that *any cap* will have any positive impact. Indeed, the evidence before the USACE is that the river is now aggrading generally, and that additional material is presently available for the Dredgers. Patterson, March 22, 2011.

In the ROD, the USACE considered three alternatives for each segment in the LOMR and then set the segment cap based on what it considered to be the "Environmentally Preferred Alternative" for each segment, with the goal being no more than slight to moderate river degradation. The USACE then divided this capped amount among the Dredgers holding permits in each segment, with no explanation as to the methodology behind the allocations.

Alternative A was purported to be 10% of the estimated bed load for below average water flows. EIS (ES 5.3). It is the level of dredging that has occurred in the St. Joseph segment. The application of Alternative A to other segments results in up to a 74 to 78% reduction from the annual average taken by the Dredgers between 2004 and 2008. *Id.* As the Dredgers have pointed out, Alternative A would not allow sufficient material to justify a full time dredging operation and is the economic equivalent of denying the permit. Comment letter of D. Shorr ("Shorr"), September 7, 2010, p. 18. The USACE contends that adopting Alternative A will result in a "slight risk" of degradation. Absent a sediment model and comprehensive study of the causes and contributors of bed degradation, this is but a presumptive theory. Alternative A is not based on facts and, therefore, consideration and adoption of the cap is arbitrary.

Alternative B was purported to be 15% of the estimated bed load for average water flows. EIS (ES 5.3). It represents a 30% cut from 2004 to 2008 averages. Again, Alternative B does not meet the purpose and need statement made by the Dredgers in applying for these permits. Shorr, September 7, 2010, p. 12. Alternative B was proposed to represent a "slight to moderate risk" of degradations in all segments but Waverly. Again, this assumption presumes that the USACE has studied the causes of degradation and can scientifically link commercial dredging to overall bed degradation. It has not and it cannot. Thus, Alternative B is an arbitrary number.

And while Alternative C is the most generous alternative, the analysis was neither based on the availability of the resource nor the current or future demands of the Dredgers. Alternative C is a number approximate to the negotiated amounts removed from the LOMR by the permitted Dredgers between 2004-2008. EIS (ES-5). The ROD and the EIS deemed the risk of degradation to be "moderate to substantial," when, in fact, there was little to no analysis to suggest that allowing dredging operations to continue at current permit levels would have any

measureable effect on river bed degradation. Further, despite its consideration of Alternative C, which was not resource based, the USACE unreasonably and arbitrarily refused to consider or evaluate the tonnage limits requested by the Dredgers or the no-cap "mine and relax" approach that was also proposed. EIS (ES-5).

**E. The USACE can protect at risk areas while allowing sufficient tonnage.**

As set forth above, there has not been any study that would demonstrate that capping tonnage based on river bed loads, real or estimated, will have any effect on river bed degradation. The difference in the amount requested in the permits and the amount allowed is immeasurable as far as the overall size and amount of material in the river. Any claim that these limits will have any impact on the broader issue of bed degradation is arbitrary, capricious, and contrary to law.

The only study that exists, while flawed, is the limit on the material that can be removed per river mile to avoid localized bed degradation. This 60,000 number serves as the basis of the limits that the USACE imposed on what it views to be the areas of the LOMR that are most at risk. Neither the ROD nor the EIS provide a sufficient explanation as to why the Dredgers should not be allowed to remove material from the river in other areas at the same volume that is allowed in the most protected areas at will.

The arbitrary nature of the USACE's tonnage limits is best demonstrated in the Waverly segment. According to the EIS, there has been a one foot aggradation in Waverly between 1998-2007 and a 1.7 foot aggradation between 1998-2009. EIS (3.4-80). Yet the USACE limited the tonnage for Waverly to 1,140,000 collective tons annually and denied Capital Sand's request to take 500,000 tons of material in the Waverly segment. ROD (4-23-24). Using the 60,000 ton/mile/year number, which the EIS says, with 95% certainty, will not result in localized bed degradation, the Waverly segment, at 107 miles in length, would yield 6,420,000 tons of material

each year. Adopting the more conservative number of 30,000 ton/mile/year, the segment still would have 3,210,000 tons of material that can be used each year without risk of bed degradation. Similarly, the St. Joseph segment, another 107 mile reach that has been deemed to be stable, was limited to 860,000 tons per year. Like Waverly, the reach should yield 6,420,00 tons under the 60,000 ton/mile/year number or 3,210,000 tons a year at 30,000.

According to the EIS analysis, the Jefferson City and St. Charles segments each have signs of degradation, all of which are more prominent in areas where dredging activity has been concentrated. EIS (3.4-80-82). Those areas have been designated as protected in the Permits, however, and the appropriate limits have been set. The USACE has not demonstrated, however, the need for such a conservative limits in areas that are not endangered. To do so would be counterintuitive, because the Dredgers would not have any incentive to spread out their practices. The Jefferson City segment is limited under the current permits to 1,630,000 tons annually. The 120-mile segment should yield 7,200,000 tons a year under the 60,000 tons/mile/year number and 3,600,000 a year if that number were cut in half. The St. Charles segment is 130 miles, which should allow 7,800,000 tons of material a year, or 3,900,000 at the more conservative rate. Instead, the USACE arbitrarily limited the four active dredgers to a collective 1,710,000 tons a year, less than half of the most conservative estimate that would protect the segment from degradation from over-dredging.

Even the Kansas City segment, which is the most heavily engineered portion of the LOMR, yields more material using this analysis. The entire Kansas City segment has been designated as protected and the 300,000 tons/year per five mile reach. This protection alone should be sufficient to ensure that commercial dredging does not result in further degradation in the Kansas City segment. The USACE instead imposed the harshest limits on the Kansas City

segment, starting at 1,200,000 tons and decreasing to 540,000 tons in 2014, which are far below current levels and below the level that is economically sustainable to keep the Riverside plant open. The 34 mile segment should yield 2,040,000 tons each year at the 60,000 per segment mile number. Half of that number is close to the 1,200,000 ton level set for 2011 and suggests that allowing that number to be taken each year is sufficient.

## II. The Dredgers Appeal The USACE's Adoption And Use Of Segments And Fixed Segment Boundaries For Permitting Purposes And, Specifically, The Imposition Of An Additional Tonnage Limit Within The Specific Segments.

In the proposed Permits, the USACE has imposed segment-based tonnage limits, which restrict the amount of material that each Dredger may remove from each segment in which the Dredger holds a permit. This is a departure from previous permitting cycles, where the USACE restricted dredging to specific reaches, but the Dredgers were free to take material from any reach of the river that the Dredgers' permits allowed. The Dredgers accept that their permits will be tied to reaches for administrative purposes and that some limits to dredging activities are necessary for certain protections, such as cultural resource surveys and the protection of habitats. The adoption of segment-based tonnage limits in addition to the reach limits, however, serves no factual or logical purpose and, therefore, is arbitrary.

The USACE adopted the segment lines as a tool to study and evaluate the river. While dividing up the river for study may have its purpose, these segment lines are fictional divisions of a single, fluid river, and have no utility for permitting purposes, other than as a means to further curtail commercial dredging. Indeed, neither the EIS nor the ROD offer any authority for imposing segment-based tonnage limits. Because there are no actual measurements of the amount of sediment in the LOMR (EIS (A-36)), the segment-based tonnage limits are based on the EIS' incomplete and flawed estimates of the bed loads in each segment. (Section 1, supra). The bed loads for some of these segments are not based on any measurements or other hard data

at all, rather they are estimates based on other estimates in the other segments. *See generally,* EIS (A-4). Without a proper factual basis, the USACE's imposition of these segment-based tonnage limits for each specific section of the LOMR is arbitrary.

Further, the segment-based tonnage limits are not needed to protect areas in the LOMR that the USACE views as vulnerable to overdredging. That concern is addressed by the 300,000 per five mile reach limitations that the USACE placed on those sections of the river that it believes to be at risk. ROD (4.24). The Dredgers agreed that this limit was protective while data demonstrated otherwise was being gathered. *Id.* According to the USACE and the drafters of the EIS, these limits should protect areas where there is concern that concentrated dredging will lend to bed degradation. ROD (4-24).

The segment-based tonnage limits are contrary to USACE's stated goal of encouraging the Dredgers to spread out their operations across the LOMR and to discourage overly localized dredging efforts. *See* EIS (2-89-90). Under these new Permits, the Dredgers who hold permits in more than one segment are tethered by the segment-based tonnage limits, which encourages those Dredgers to dredge in a specific location, rather than to adjust their operations based upon the amount of material available in specific areas in the river. Now that the segment-based tonnage limits are absolute, fixed boundaries, the Dredgers will be forced to take the material according to these arbitrary segment lines rather than to adjust to the availability of the resource.

Further, the Dredgers are now in the position where they are competing for tonnage within a specific segment. As the USACE agrees, it is better to allow the Dredgers to leave material in the river until such time as it is needed. *See* ROD (3-40). These segment-based tonnage limits discourage this practice, as the Dredgers are now motivated to aggressively

remove the most accessible material early and often, because they might not be able to get it later or in another place. The move is counterintuitive to river conservation.

Finally, the segment-based tonnage limits are arbitrary in that they bear no relationship to the existing operations of the Dredgers or to reasonable future practices. The segment-based tonnage limits do not take into account market demands, which may drive the decision on where a Dredger chooses to remove material from the river. The segment-based tonnage limits are inflexible and do not accommodate the differences in dredging practices, marketing, and transportation between the Dredgers. The USACE has imposed the segment-based tonnage limits for its own convenience and not for the purposes of the Dredgers or the river. As such, the decision was arbitrary.

## III. The Dredgers Appeal the Improper Permit Decision the USACE Failed to Consider the USACE-controlled River Structures, Including the BSNP, as Part of the Analysis of the Causes and Contributors to Bed Degradation, Which Has Resulted in Disproportionate Action Against Commercial Dredging.

The Dredgers appeal the USACE's refusal to consider the BSNP and the dams, reservoirs, and other structures on the Missouri River as causes or major contributors to bed degradation. This refusal is a voluntary omission of information, which is material to the analysis of the effect of proposed permits. *See* 33 C.F.R. Part 331. The omission also violates NEPA's requirement that an agency take a "hard look" at the environmental consequences of a proposed action. *See Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402 (1971). Because the USACE refused to consider an issue that is essential to any credible analysis of the causes or cures to river bed degradation, and also failed to properly respond to the concerns of the Dredgers and others commenting on this topic, the USACE acted arbitrarily and capriciously, in that it relied on inaccurate and insufficient analyses and it failed to follow the requirements of NEPA.

As part of the review of the Dredgers' applications for permits to conduct dredging operations on the LOMR, the USACE purported to consider the environmental impact of commercial dredging, including the issue of river bed degradation. The USACE adopted substantial limits on the amount material that the Dredgers would be allowed to remove from the LOMR. The USACE justified these extensive cuts under the presumption that reducing the amount of material removed from the river over amounts allowed under previous permits would have a positive impact on the purported issue of river bed degradation. This presumption cannot be supported, however, because of the USACE's failure to analyze how the BSNP or other river structures cause or contribute to bed degradation.

The USACE readily admits that the dams, reservoirs, and other river structures, including the BSNP, which reduce or restrict the river's water flow, are major contributors to river bed degradation. EIS (1.5.3). The EIS did not determine how much of the perceived bed degradation problem had been caused by each contributing factor. ROD (3-30). The USACE acted arbitrarily by purposefully limiting the scope of the EIS and refusing to consider their own structures, despite comments to the contrary by both the applicants and USEPA (USEPA, March 24, 2011 comment letter, p. 3) in its analysis of the causes of river bed degradation. Without considering all major causes of bed degradation, it is impossible for the USACE to assign any risk or assess the proportional impact of commercial dredging activities. The analysis of the BSNP's impact upon bed degradation is a task that should have been done years ago when degradation pressures first began to increase. By refusing to consider the overall condition and cause of degradation, the USACE has willingly failed to take the "hard look" required by NEPA at the environmental effects of the proposed permit action.

NEPA is a law of procedure, which dictates the steps that any federal agency must follow in considering the environmental impact of a proposed action. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 359 (1989). NEPA "places the obligation on the reviewing agency to consider every significant aspect of the environmental impact of the proposed action" and "ensures that the agency will inform the public that it has indeed considered environmental concerns in its decision making process." *Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 97 (1983) (citations omitted). One element of the hard look analysis is that the EIS must be based on complete and reliable information. If there is incomplete information relevant to the agency's review of the impact of a reasoned choice and the costs of obtaining the information are not exorbitant, the agency is required to include that information in the environmental impact statement. 40 C.F.R. § 1502.22. The USACE is the steward and the keeper of all knowledge relating to the BSNP and its consequences. It alone has the ability to determine the design effects or defects the BSNP has on bed degradation, and the sole ability to share that information.

Proper challenges under NEPA examine whether "the agency has taken a 'hard look' at the environmental consequences." *Kleppe v. Sierra Club*, 427 U.S. 390, 410 (1976). If the agency's analysis is arbitrary or capricious or "contrary to the procedures required by law", a reviewing Court may conclude that the agency failed to take the required "hard look." *Kleppe*, 427 U.S. at 410 n. 21. Instead of taking a broad analysis, the USACE used the EIS as a tool to shift the burden of the bed degradation issue to commercial dredging with no scientific proof that dredging, on its own, has any measureable impact on the LOMR. The USACE offers cuts to commercial dredging as a band-aid solution to the greater problems with of the river structures and the BSNP. The EIS and the subsequent ROD attempt to loosely correlate an increase in bed

degradation with an increase in commercial dredging over the past fifteen years. During this same period, however, significant modifications to the BSNP structures were completed. *See* EIS (3.2.4.2.-8-9). And, as detailed below, other needed modifications to the BSNP structures were delayed. Not by chance, the Kansas City segment, where the most degradation is claimed, is also one of the most developed sections of the river. *See* EIS (3.4-84). Additionally, not all areas in where commercial dredgers have operation are degraded, and in turn, degradation is not limited to areas dredged. *See* EIS (Figure 3.4-22, 3.4-33). As such, from the start the USACE lacks sufficient or persuasive data to support their alleged correlation and their conclusion of commercial dredging as the guilty party. This conclusion has not been adequately peer reviewed nor adequately addressed by public study transparent to all. Further, significant new data and analysis was included in the Final EIS. Patterson, March 22, 2011. The practical effect of this procedural oversight by the USACE is that the data and analysis cannot be evaluated by the public in the proper context and no comments can have any effect on the decision-making of the USACE except by appeal.

Despite this oddly circumscribed analysis by the USACE, there is a broad consensus that the river structures controlled by the USACE are significant contributors to the perceived degradation problem. Indeed, river degradation is a predictable consequence of the tremendous extent of engineering that has been applied to the Missouri River, and in fact some scouring the river bed to maintain navigation depths is a specific purpose of the BSNP dike structures. The construction of the various dams, reservoirs, and other river structures has highly altered every aspect of the LOMR. EIS (1.5.1). Prior to construction of the dams and other structures, sediment was plentiful in the LOMR. EIS (1.5.2). The addition of these structures has limited

the available sources of sediment to the tributaries that feed into the river and the erosion of river banks. EIS (1.5.2).

The BSNP, which began in 1912 and was completed in 1981, changed the historical river into an engineered structure. EIS (2.7.4). The BSNP, by design, created a deeper river, with faster flow, which decreased the sediment loans. The BSNP is an effort to engineer a natural resource, which directly leads to river bed degradation. Water flow and sediment levels in the LOMR have changed substantially since the construction of the BSNP. EIS (3.4.5.2). A natural river can react to various environmental factors by changing bed elevations, locations, water flows. An engineered river, in contrast, cannot adjust itself. The only way an engineered river responds, absent modification to the structures, is by degrading the bed. EIS (3.4.6.3). Since the completion of the river structures and the BSNP, which created straighter channels and faster water flows, there has been a marked drop in sediment levels, along with the river's elevation. EIS (2.7.4). Because of the dynamics of the existing BSNP structures, degradation will continue to be a factor **whether or not commercial dredging exists in the LOMR**.

The degradation of the river bed can be attributed to the BSNP structures, as they are designed to channelize and cut a navigation channel during low flow periods. Many of the dike structures built were designed to be overtopped by water 75% of the time, moving sediments that accumulate at low flows that would otherwise constrict the channel. If the dikes are too high, or if there are extended periods of drought, the material builds up behind the dikes, constricting the channel and increasing channel depth, bed forces, and degradation. In fact, the 1993 flood, followed by the drought that began in 1999 and ended in 2007 created record low water flows, which resulted in almost five feet of degradation. (MRCD EIS Figure 3.4-25, page 3.4-77). Because lowering the bed (degradation) has the same effect as raising the elevation of the dikes,

the dikes are topped less and less resulting in a non-linear cycle of channel constriction and accelerated degradation. Dredging has existed on the river for over 130 years, long before the construction of the dams, reservoirs and the BSNP were authorized by Congress. The sands and bed of the river are the property of the states of Kansas and Missouri. The operation of the USACE modified river must include adjustment for dredging as an important use and allow for the reasonable extraction of the state's resources as part of the BSNP management.

The USACE, in its management of the BSNP and other river structures, controls the water flow of the Missouri River. EIS (3.2.5). These water flows, in turn, dictate how much material is in the river. The USACE, in essence, "operates" the river and can control river degradation, particularly in response to specific events like the 1993 flood and the extensive drought that occurring after that event. EIS (3.2.5). USACE guidelines for structure maintenance of the BSNP express that the BSNP requires "constant monitoring of the project and its environs" and that BSNP structures can and should be modified to address excessive degradation. April 5, 1988 USACE Memo; Missouri River Navigation Project Design Criteria, January 1994. Modifications can include lowering, shortening, or removing sill dikes when needed to reduce excessive scouring action or address a sediment imbalance. *Id.* Unfortunately, the USACE has not always adhered to these standards. In practice, including the critical low water period from 1999-2007, the USACE has either lacked the awareness, initiative or the resources to control the bed degradation issue through maintenance and adjustments to these structures.[2] The USACE, in its current permit decision, continues this practice, and shifts the

---

[2] The 2012 Presidents Budget for the MRRP is between $70 and $80 million. By contrast, the USACE funding in the 2012 Presidents Budget for maintenance and improvement of the BSNP on the LOMR is $3.5 million.

responsibility for evaluating, maintaining, and controlling their river structures from the USACE to the Dredgers.

There is evidence in the record to suggest that making adjustments to the BSNP has long been known to be an effective method of controlling degradation, and that these adjustments are necessary to protect the integrity of the river. (Missouri River Navigation Project Design Criteria, page 4). The USACE's own Design Criteria for the BSNP, at, paragraph D. TYPICAL PROBLEMS/CONCERNS, states: "The impact of underwater sills on velocities in the navigation portion of the channel can be significant, therefore, the degree of contraction should be closely observed; and the length of sills modified or adjusted as necessary." EIS (3.4.3.2.); Missouri River Navigation Project Design Criteria, January 1994.

The USACE's criteria suggest that the Corp should, from time to time, modify current or build new structures to adjust to current water conditions. Missouri River Navigation Project Design Criteria, January 1994. The experience of recent years (1999-2007), in which the LOMR has experienced low water conditions of record proportions, is that those adjustments did not happen. Following the 1993 flood, these dikes sat well above the correct design criteria, two feet below the CRP, resulting in further degradation. In 2009, the USACE finally took corrective action and lowered the dike heights in the Kansas City segment. It is acknowledged by the USACE that the Kansas City segment had aggraded in the years leading up to the 2009 changes. EIS (3.4-78). The USACE, inexplicably, has refused to evaluate or acknowledge the increased sediment levels since the 2009 changes or to include that analysis in the EIS. This omission is arbitrary.

The EIS drafters' failure to consider the 2009 changes to the BSNP is also material for the purposes of 33 C.F.R. 331.5. The drafters claim, citing unpublished communications with

USACE officials, that the 2009 changes to the Kansas City segment were one of many continuous and periodic modifications to the BSNP. EIS (10-115,116). This assertion fails to appreciate the marked difference between the 2009 modifications and the prior USACE actions in this area, which have been limited to repairs, environmental notching, and partial remedies performed throughout the river. The work in 2009 marked the first time that the USACE excavated sill dikes to the correct height according to BSNP criteria. It is improper not to acknowledge the existence of and the effect that these actions have on the cross section, flow conveyance and scouring energy in the river, and whether the failure to make such appropriate modifications at an earlier date is, in fact, the primary cause of the accelerated degradation seen in the Kansas City reach after the 1993 Flood and the severe drought from 1999 to 2007.

Further, these 2009 changes to the dike structures were made at the same time the EIS was being conducted and the river cross sections were being surveyed with the purpose of comparison to the prior baseline surveys of 2007 and 2008. The refusal to assess or account for this material change to the structures of the LOMR brings the validity of many of the conclusions of the EIS into question. The omission also makes it impossible for the USACE to measure the effectiveness of the restrictions placed on the Dredgers under the 2007 permit cycle.

The CRP was updated in 2010 and available data shows aggradation of the river in 2008 and 2009. EIS (3.4-78). Additional changes to the LOMR can be expected to improve bed degradation. For example, the planned MRRP projects are being conducted by the USACE to comply with requirements of the biological opinion to preserve endangered pallid sturgeon populations, and will reconnect channels and will improve fish and wildlife habitat. EIS (2.7.4). This project is also expected to dramatically improve increase sediment bed load and reduce overall degradation. EIS (3.2-12). In contexts other than the EIS and the current ROD, the

USACE seems to acknowledge that the BSNP can be adjusted to protect the river. In the recent Reconnaissance study, the USACE determined that it did not have sufficient information to pinpoint the causes of degradation. The USACE has asked for funds to study the causes. EIS (3.2-160; ROD (3-33). One of the factors that must be is what changes to the BSNP have and still need to be made to address river bed degradation and to preserve the river and surrounding structures without endangering private industry.

The Dredgers timely challenged the failure to address the BSNP. Shorr comment letter, September 7, 2010. The Dredgers were not the only party that has asked the USACE to assess the impact that the BSNP has on river bed degradation. On September 2, 2010, seven members of Congress from Missouri and Kansas, in response to the draft EIS, urged that the USACE consider all causes of bed degradation before reducing commercial dredging:

> It is our understanding that the two principal reasons for bed degradation in the lower channel are: (1) the retention of sediment behind the major dams and, (2) the design of the BSNP to assure a "self-scouring channel." While we acknowledge that commercial dredging may have an influence on bed degradation, the substantial differences, namely scope and scale, between the removal of seven million tons of sand and the major engineering efforts of USACE to modify the behavior of the river are indisputable. We recognize and understand the need to address the impact of commercial dredging; however, when placed in the context of the significant engineering projects by USACE, we cannot reconcile an impact on this private commercial industry without an examination of the impact of your own actions that result in potential bed degradation.
>
> Accordingly, we are troubled to learn of the potential for the reduction or elimination of commercial sand dredging on the Missouri River when USACE has not yet evaluated the impact of the retention of sediment behind the damns and has failed to analyze whether modifications to the BSNP are necessary to reduce the risk of bed degradation.
>
> To that end, we encourage you to address the impact of your own engineering efforts before considering a further reduction of commercial sand dredging on the Missouri River that will result in reduced availability of the principal material for aggregate within the boundaries of the State of Missouri and parts of the State of Kansas. Until such time as USACE has evaluated the implications of its own

> actions, we cannot support further reductions based on conjectures and possible correlations.

September 2, 2010 letter to the Honorable Jo-Ellen Darcy and Colonel Anthony J. Hofmann. The Members of Congress requested that the USACE respond with a schedule as to when the USACE would reevaluate its own actions and that the Dredgers' permits be reissued at current levels. *Id.* Several state and local governmental officials, trade associations, and other interested commentators expressed similar opinions during the EIS comment period. *See, e.g.,* September 6, 2010 comments from Missouri Levee and Drainage District Association; September 3, 2010 Comments from the City of Lexington, Missouri; September 3, 2010 comments from Missouri Department of Natural Resources; September 2, 2010 letter from Missouri State Senator K. Schaefer; September 2, 2010 letter from Montgomery County, Missouri; August 12, 2010 letter from City of Washington, Missouri; September 1, 2010 letter from City of Herman Missouri; September 3, 2010 letter from the Coalition to Protect the Missouri River. The Dredgers joined in this request.

The USACE dismissed the concerns of Congress, the Dredgers, and others, stating that the analysis was seen as beyond the scope of the EIS and the ROD. ROD (3-32). But the USACE had a legal obligation, as part of NEPA's "hard look" requirement, to determine the true environmental impact of the proposed action. Part of this analysis required the USACE to establish true causation between commercial dredging and river bed degradation. By omitting a known contributor to the problem from the analysis, the USACE put on blinders as to the causes and potential solutions to river bed degradation. In doing so, the permit analysis omitted material facts and violated NEPA's "hard look" requirement. As such, the permit decision by the USACE was arbitrary and capricious as a matter of law.

## IV. The ROD Impermissibly Piles Assumption Upon Assumption To Reach Its Flawed Alternative Sources Conclusion.

Relying solely on the statements contained in the final EIS, the ROD summarily concludes that "the sand and gravel resources in the region appear to be sufficient as a substitute for displaced supplies from the LOMR in the short term[.]" ROD (4-12) & ROD (2-10 to 2-13). According to the ROD, the reduced levels of extraction in the LOMR "will not have significant cumulative impacts on the regional economy because existing and planned sand mining operations have ample reserves of sand that meets the requirements and can fulfill the market needs now and in the future." ROD (4-16). Upon a closer inspection of the EIS, however, one inescapable conclusion remains: the alternative sources analysis impermissibly consists of estimates based on flawed assumptions that are based on more estimates and assumptions. This chain of faulty reasoning cannot withstand any level of scrutiny. The USACE's decision to blindly adopt the EIS's alternative sources analysis results in a purely arbitrary judgment about far-reaching matters which will negatively impact the region both economically and environmentally. At the end of the day, there are simply no hard facts or data to demonstrate that enough material is available to fill the void left by the USACE's permits.

### A. The proposed short-term solutions are unfounded.

The final EIS expressly recognizes that "supplies dredged from the LOMR represent the majority of sand and gravel used in the primary market area in proximity to the river[.]" EIS (2-27). To absorb the substantial and immediate decreases in LOMR dredging, the EIS first relies on short-term existing sources to handle the regional demand for sand and gravel while long-term sources are being developed and permitted over the next 5-10 years. EIS (2-28). With this initial assumption firmly established, the EIS declares that existing mining operations "**may** be available to provide immediate replacement supplies." EIS (2-28) (emphasis added). More

specifically, the EIS identifies four categories of sand and gravel mining operations to respond market pressures until new long-term sources are developed: the Kansas and Mississippi Rivers; open pit mines; instream mining; and manufactured sand. *Id.* None of these sources provide a viable replacement for LOMR dredging. Any argument to the contrary by the EIS (and USACE) rests on a foundation of speculation and surmise—not fact.

**1. Kansas and Mississippi Rivers.**

The EIS states that the most comparable alternate source of sand and gravel is material dredged from the Kansas and Mississippi Rivers. EIS (2-28). It even labels these sources as the "clear option to offset changes in Missouri River supplies[.]" *Id.* (2-29). However, in the Kansas and Mississippi Rivers, commercial dredging of sand and gravel is authorized by permits issued by the USACE. *Id.* Neither river is a sustainable alternative in the short or long term.

To determine the available capacity of dredging operations in these two rivers, the EIS focused on the difference between the maximum permitted amounts and the current production (demand). EIS (2-39). The EIS concluded that the total amount of sand and gravel authorized to be mined from the Mississippi River is approximately 2.2 million tons per year, while current production is approximately 1.1 million tons per year. *Id.* (2-39). The EIS then estimated that approximately 1.2 million tons of additional sand and gravel can be extracted from the Mississippi River annually and used to serve the primary market area currently served by the LOMR. *Id.* (2-39). Likewise, with respect to the Kansas River, the EIS stated that up to approximately 2.2 million tons can be annually extracted from the Kansas River based on existing permits. Using what it identified as existing and historical annual production numbers in the Kansas River of approximately 1.4 million tons per year, the EIS surmised that the available capacity in the Kansas River is about 757,000 tons annually. *Id.* (2-39).

Reliance on either the Kansas or Mississippi Rivers to provide the necessary short-term alternative sources is unrealistic. In recent years, permitted quantities in the Kansas River have been reduced or suspended due to concerns of river bed degradation. EIS (2-30). Despite this fact, this source is expected to generate 0.8 million tons of sand and gravel per year, over 10 percent of the total projected shortfall. Once the economy recovers, the Kansas River sand will be needed in its local market. This sand is also located too far from the LOMR market to be cost efficient. Similarly, the Mississippi River is expected to generate an additional 1.2 million tons per year despite that fact that there have been no new commercial dredging permits approved since 2007. Indeed, Limited Leasing has had a pending Mississippi River permit since 1999 that remains unfulfilled. It is extremely naïve to assume that these alternative sources of supply are certain.

Another issue which is glossed over by the EIS is that the quality of sand and gravel from the LOMR meets specifications for Class A fine aggregate, which is required for road construction projects undertaken by the MoDOT and KDOT. EIS (2-39). For major construction projects, the Kansas and Mississippi Rivers will likely be the only sources still available to satisfy state specifications. Moreover, MoDOT further requires that all sand for a project come from a single plant. A single instream or open pit mine subject to the less than 5,000 ton production limit would be precluded from even bidding on MoDOT contracts. A letter from MoDOT confirms the State's preference is material from the Missouri River because of its abundant availability, high quality, and minimal processing. In 2010, sixty percent of the natural sand used on MoDOT projects came from Missouri River sand. No less important, material from the Missouri River allows the State's taxpayers to receive the greatest value for every dollar spent on transportation improvements. It would cost taxpayers millions of additional dollars in the form of added project cost due to the loss of the State's most economical sand resource. Significant gaps in the EIS analysis plainly exist.

Finally, the EIS expressly concedes that the Kansas and Mississippi Rivers are not sustainable in the long-term due to authorized tonnage limits, NEPA compliance, and additional permit review. EIS (2-39). The EIS explains that these rivers are unlikely to expand their capacity, and their "longevity is unknown and maybe even not very likely." EIS (10-13). Any conclusion that available volume from the Kansas and Mississippi Rivers will fulfill the material demand is erroneous.

**2. Floodplain open pit mines, instream mining and manufactured sand.**

The lack of reliable data to support the alternative sources hypothesis continues with the following finite or nonrenewable sources: open pit mines; instream mining; and manufactured sand. At the outset, the EIS acknowledges that "the suitability, availability, and cost of production of these sources vary widely." EIS (2-28). The EIS then expressly concedes, as it must, that its methodology to calculate available capacity is grounded on mere estimates and assumptions:

> The available (or unused) capacity of alternate sources of construction sand and gravel is difficult to estimate because production data and operating parameters of individual mining operations are not known and often are considered proprietary information. Therefore, estimates of available capacity have been developed using the best available data and a set of analytical assumptions that are prescribed here.

*Id.* (2-38). Based on this concession alone, USACE's alternate sources analysis must be rejected as arbitrary.

**i. <u>Open-pit mining operations.</u>**

The EIS asserts that, based on its "assumptions," approximately 4.4 million tons of sand is annually available from open pit mines throughout Missouri. EIS (2-40). Individual pit mine outputs and capacities are unknown, leaving the EIS to rely exclusively on estimates using a

series of debatable assumptions. Simply put, there is a total lack of factual information utilized by the EIS to calculate the capacity of pit mines with any level of certainty.

Open pit mining operations for sand and gravel are permitted by the MDNR Land Reclamation Program, the Kansas State Conservation Commission, and the Illinois Department of Natural Resources. EIS (2-30, 2-35). Some open pit mines are permitted with limits of 5,000 tons, while others have no limit. Only Kansas has publicly available information on existing production levels for sand and gravel mines. EIS (2-41). Provided with actual data, the EIS estimated an available capacity of "only 38,000 tons per year" from Kansas mines. The EIS estimated 532,000 tons of available capacity in Illinois. EIS (2-41).

Actual production data was not available from the MDNR. As the information is considered confidential and proprietary, the EIS conceded that it was not feasible to query mining operators about their available capital and production capacity. The EIS further admitted that "it was not possible to evaluate each mining operation relative to available capital, operating parameters, and regulatory compliance issues" and that the "figures reported in the EIS for available capacity are only planning-level estimates." EIS (10-14). Refusing to shy away from this set of circumstances, the EIS boldly concludes an available capacity of 4.4 million tons exists throughout Missouri.

Remarkably, the EIS reaches this estimate despite not knowing the statewide production level of open pit mines in Missouri beyond 2007 or the production of sand and gravel at individual pit mines in Missouri. Instead, the EIS extrapolates from national trends and then subtracts the Dredgers' production in 2009 from the national trends figure to ultimately conclude that 4.5 million tons of sand and gravel were produced from existing open pit mines permitted by MDNR. EIS (2-40). After making this series of presumptions, the EIS then assumes that

existing MDNR-permitted operations can produce at least as much sand and gravel as was produced in 2006. *Id.* Following this tortured logic, the EIS concludes that open-pit mines have the capacity to increase production by 4.4 million tons, or almost doubling their current 4.5 million production level: "Based on these assumptions, an estimated 4.4 million tons of available capacity are present in open-pit mines throughout Missouri." *Id.*

Available capacity from pit mines in Missouri is based on nothing more than mere surmise, an avenue that is certainly inadequate for the monumental decision proposed by the USACE. Essentially, the EIS assumed that aggregate output equal to the pit mines' 2006 peak production level is attainable by either increasing the output per acre or increasing the number of acres in production. The potential output of individual mines was then estimated by allocating the aggregate capacity based upon the relative size of individual mines. In other words, the EIS relies on the faulty premise that since alternate sources produced more in 2006 than they did in 2009, then there is 4.4 million tons of production available. The EIS fails to appreciate that in 2006 the Dredgers and all the alternative sources, including pit mines, were functioning at maximum production efforts. Present levels of demand, however, are obviously not permanent. Once the economy recovers and demand returns, there will simply be no excess capacity. By failing to allocate for long-term growth or a return to long-term averages of construction, the short-term plan of the EIS will create shortages of sand in Missouri.

The EIS's open-pit mine estimates also lack any credibility based on several other erroneous assumptions. First, the EIS estimate presumes that the number of mines have remained at the 2006 level, which is simply not correct. The number of mines has decreased since 2006. Second, the EIS assumes, albeit incorrectly, that the potential supply from open- pit mines have not been exhausted. Third, the EIS guesses that the permitted values for the mines

with capacity limits are actually indicative of their potential output. Fourth, it is the bare assumption that these other operations produce sand and gravel that is suitable for most applications other than road construction specifications required by MoDOT. EIS (10-17).

The probability that all of these assumptions are true, let alone accurate, is certainly remote. Pit mines are not a sustainable source and will not produce the volume and quality necessary to absorb the loss of the LOMR material. Pit sand will cost the customer $4 per ton more due to the added costs of wasted fine sand, land reclamation costs, and increased cement content because of the finer gradation. Delivery costs will be $3 to $4 a ton greater because of the added 10 to 20 mile haul to sites. In the future, pits will not be within the commercial zone so load capacities will be a third less, increasing delivery costs another third. Sand pits are not closer to the end user or market, and sands hauled on country roads will destroy those roads and require significant expenditures to rebuild them.

**ii. <u>Instream mining activity.</u>**

Instream mining activity, which also requires a permit, is not a practical alternative at all. In Missouri, regulations governing operation of these facilities limit their operation to certain areas and to certain times of the year. As the EIS admits, the "combined limited area and limited time of operation restrict the overall production of sand and gravel available from this type of resource." EIS (2-37).

**iii. <u>Manufactured sand.</u>**

Manufactured sand operations are not typically developed and operated independently; rather, manufactured sand is generally a part of a rock quarry or a sand and gravel operation. EIS (2-38). The EIS hardly ascribes a positive outlook to this resource. Instead, it notes that these operations generate additional air emissions (primarily particulate matter from material handling), waste water, and noise (from crushing). *Id.* Raising additional questions about the

feasibility of manufactured sand, the EIS also observes that "[t]he use of manufactured sand in the construction industry in Missouri has been relatively limited based on the abundance of other sand sources, including natural river sand." *Id.* It also notes that manufactured sand, unlike river sand, is not conducive to finishing applications, and that there are concerns associated with the use of manufactured limestone sands in concrete mixes because of chemical reactions. *Id.* The bottom line is that manufactured sand cannot be seriously considered as an available alternate source.

**B. The proposed long-term solutions are based on pure speculation.**

According to the EIS, "[i]n the long term, new sources likely would be developed in proximity to existing facilities and urban centers, which represent the largest sources of demand for construction sand and gravel." EIS (2-28). The EIS represents that new mining operations could be located in the floodplain adjacent to the Missouri River, but only if: (1) suitable sand deposits can be located on available land; and (2) the required permits can be obtained from local communities, counties, and levee/drainage districts. EIS (2-28). Cementing the absurdity of any reliance on new long-term sources, the EIS concedes that it is "not within the scope of the EIS to provide a comprehensive evaluation of the effects of new operations. Such an evaluation would be speculative without knowing the type, size, location and operational characteristics of the new operations." EIS (10-18). The EIS thus recognizes that it is not even possible to predict the location or production capacity at potential new mining operations. EIS (4.10-2).

From top to bottom, the EIS merely assumes that new sources of sand will be developed in the long run in or near major demand centers to minimize transportation costs. The probability that such supply sources could ever be developed is, at best, afforded scant attention by the USACE. In reality, development of new alternate sources will require the resolution of a number of issues, including acquisition of land with reserves of suitable grades of sand and gravel that are

accessible for extraction; availability of adequate capital for expanding existing sand and gravel operations; acquisition of permits and approvals from federal, state, and local government agencies; local landowner resistance to project development during the permitting process; the inherent risks and delay associated with extended litigation; feasible site reclamation following closure; and other environmental compliance issues. *See, e.g.*, EIS (2-43). A period of 5-10 years or more is typically required for project permitting and development, including the delivery and installation of the necessary production equipment.

With respect to the USACE's assumption that pit mines for sand can be constructed to supplant the decreased production from the river, the USACE ignores the significant difficulties in purchasing and zoning pits anywhere near the Kansas City metro area and the substantial operation cost increases with pit mines. The bottom line is that the permitting and location of pit mines is a matter for state and local governments and is not the province of the USACE to decide. The USACE fails to consider that these governmental branches may view the availability of inexpensive material from local sources that provide jobs to be of more importance than the risk of river degradation. Equally disturbing, the USACE's position fails to consider the environmental impact of pit mining versus the risk of bed degradation. The EIS admits that "the specific locations that would provide supplies are not known and impacts related to the geomorphology of associated rivers and streams cannot be determined." EIS (4.2-48). While the EIS believes that the expected impacts to the geomorphology of any streams and rivers is expected to be minimal in the short term, it remarks that there may be an impact in the long term. EIS (4.2-48). This is hardly the "hard look" one would expect the USACE to perform under NEPA. There is no evidence that construction of new pit mines is an available long term option.

Finally, the long-term analysis of the EIS wholly ignores that new sources of sand would be finite. While the LOMR provides a replenishable source of sand, new pit mine operations

would not. Contrary to the picture portrayed by the EIS, the probability that new, replenishable supply sources will exist and be developed in the major metro and urban areas in Missouri is extremely small. In the long run, off-river mining will result in higher costs for sand, concrete, and asphalt. The long-term analysis provided by the EIS falls far short of the reasoned rationale required to sustain the USACE's permitting decision for the Dredgers.

**C. The USACE's trucking and hauling presumptions are inaccurate.**

Another flaw permeating throughout the alternative sources theory is that the transportation distance between supply sources and demand sources was based on straight-line distance (as the bird flies) rather than the distance travelled along the existing road work. EIS (4.10-6). Because the location of alternate sand and gravel sources are more distant to demand centers, this will result in even greater increases in the delivered costs of construction sand and gravel than accounted for by the EIS. EIS (4.10-29). With the availability of sophisticated technology to calculate the distance between supply points and demand centers, this is a shortcoming that should have been addressed because it is critical to the calculation of the delivered cost of sand and the associated environmental impacts.

To this end, the choice by the EIS to define the primary market area using a standard 25 mile circle results in a mischaracterization of the true travel distances and costs by 20 to 25 percent for most of the pit mines—especially considering the limited number of bridges in Missouri outside of the St. Louis and Kansas City metro areas. The primary market area calculation is a complete misnomer. There are different business models for urban, suburban, and rural sand supply chains. The market area is larger in all circumstances, and the market areas serving the rural counties is especially larger where transportation is longer with greater frequency. A market area of 65 miles or greater is common for rural use. To utilize a single criterion for geographic areas that are very dissimilar is perplexing and arbitrary. As a consequence, the entire

EIS analysis takes on a strong urban bias that has significant implications for the study's findings and conclusions.

**D. The USACE disregards the sand and gravel distinction.**

Notably absent from the EIS alternative capacity analysis is any effort to accurately distinguish between the supply and demand for sand versus the supply and demand for gravel. Although gravel is a plentiful commodity in Missouri, sand is not. In the absence of this acknowledgement, the entire section of the EIS attributed to alternative sources of supply and capacity is irrelevant and arbitrary. There is no reasonable certainty that alternative sources of sand are available in Missouri to replace the estimated 6.4 million tons produced from the LOMR. Consequently, sand will have to be shipped from even greater distances than those contemplated by the EIS. The end result is (again) higher delivery and transportation costs passed on to the citizens of the State of Missouri.

Alternative sources of construction sand are very limited and certainly far less than the nearly 6.4 million tons that are dredged from the LOMR. The gravel produced from the LOMOR (approximately 517,000 tons per year) is not used primarily for construction purposes, but rather for more specialized purposes such as landscaping and in drainage fields for septic systems. The analysis of alternative sources should be entirely focused upon the availability and use of sand.

**E. The economic impact of the EIS is not hypothetical.**

The economic evaluation of alternate sand resources may be the most irresponsible and arbitrary part of the EIS. The economic impact analysis contained in the EIS fails to quantify the effects upon the concrete manufacturing and construction industries—the two industries most seriously impacted. The increase prices would be devastating to the Missouri economy—gross state product would decline by over $300 million with concomitant losses in earnings and jobs of $86 million.

This is not merely an academic exercise. These decisions will have serious short term and long-term consequences for not only the construction mining industry in Missouri, but more importantly, for the construction and transportation industries in the State. As it stands, the EIS recognizes that the volume, grade and quality of alternative sand and gravel sources, their distance to markets, and the ability of existing sources to increase production beyond what is required to meet existing demand, are all important variables in the alternative sources equation. EIS (2-39). Any shifts will impact the cost of sand and gravel to consumers in the short term (mainly because of changes in transportation costs from alternate sources) and in the long term (based on the relative differences in production costs between existing potential new sources developed in the region). EIS (4.10-1). At a minimum, real and reliable data must be used to reach these decisions. To hold otherwise, as the EIS did, falls squarely in the realm of an arbitrary outcome.

## V. The ROD Failed To Quantitatively Assess The Environmental Impacts Of Its Proposed Alternative Sources Solution.

An agency must consider all of the direct and indirect impacts of its decision. 40 C.F.R. §§ 1508.9, 1508.8; *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 97 (1983) (agency must "consider every significant aspect" of proposed action's environmental impact). The USACE cannot narrowly focus on bed degradation without also addressing air quality and global warming. But that is exactly the USACE's chosen course of action, as its analysis excluded the potential environmental impact of two classes of pollutants: diesel particulate matter (DPM) and greenhouse gas (GHG) emissions. Throughout the ROD, the USACE repeatedly recognized that its permit decisions would shift the burden of sand production to alternative sources, and cause increased pit mining operations and transportation of sand by truck. ROD (3-40). The USACE's choice to favor increased truck traffic emissions over the baseline movement of sand by water barges (with minimal truck transportation) obligated the USACE to perform a specific quantitative—as

opposed to general qualitative—assessment of any potential environmental impacts. The USACE completely jettisoned that duty, resulting in an arbitrary decision and an incomplete record.

### A. DPM emissions were not evaluated.

Diesel-powered vehicles and equipment emit diesel exhaust, which contains DPM. The USACE did not quantitatively assess the health risks associated with DPM. *See also* 40 C.F.R. § 1508.8 (EA is to consider all direct and indirect effects of a project, including "reasonably foreseeable" impacts). While the EIS acknowledges that increased health risks can result from prolonged exposure to elevated DPM concentrations, it summarily concludes that a quantitative analysis of health risks is not appropriate. EIS (4.14-3 through 4.14-5). According to the EIS, "[w]ithout detailed information on the locations of new and existing alternate sources, or on the location of sensitive receptors and the length of dredging operations, it is difficult to determine whether DPM concentrations would result in adverse health effects." EIS (4.14-18).

The USACE, however, bears the ultimate statutory responsibility for complying with NEPA. *Calvert Cliffs' Coordinating Comm. Inc., v. United States Atomic Energy Comm.*, 449 F.2d 1109, 1122–23 (D.C. Cir. 1971); *see N. Carolina v. Fed. Aviation Admin.*, 957 F.2d 1125, 1129 (4th Cir. 1992) (explaining that an agency does not satisfy NEPA "by simply relying on another agency's conclusions about a federal action's impact on the environment"). Scientific uncertainties on how to quantify risks—especially uncertainties that can be resolved through obtainable information—cannot be used as a basis to avoid the required environmental analysis. *Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 733 (9th Cir. 2001) (stating that an agency's repeated statement that effects were "unknown" does not constitute the requisite "hard look" mandated by NEPA). "The purpose of an EIS is to obviate the need for speculation . . . ." *Ocean Advocates v. United States Army Corps of Eng'rs*, 402 F.3d 846, 870 (9th Cir. 2005). The USACE's comments on DPM amount to pure speculation.

### B. GHG emission were not evaluated.

Similarly, the USACE failed to quantify potential GHG emissions. The transportation sector, which includes the movement of goods by train and truck, is a source of GHGs, including CO2. The USACE's permitting decision will result in increased GHG emissions; the only question is by how much. Indeed, the EIS recognizes that increased sand and gravel operations generate increased GHG emissions, but it refuses to take the required hard look at the issue. *See, e.g.*, EIS (4.14-18; 4.14-25; and Table 4.14-6). This response is wholly inadequate. *See, e.g.*, *Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 971-72 (9th Cir. 2006) ("[a] proper consideration of the cumulative impacts of a project requires some quantified or detailed information; general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.").

While NEPA allows agencies to recognize uncertainty in their analysis, the statute does not sanction the use of uncertainty to avoid a required environmental assessment. An agency's inability to ascertain the "precise" extent of a project's effects simply does not provide a justification for failing to estimate "what those effects might be before irrevocably committing to the activity." *Conner v. Burford*, 848 F.2d 1441, 1450 (9th Cir. 1988). For instance, in *Davis v. Mineta*, the agency asserted that its EA need not discuss certain environmental impacts created by a highway construction project on the basis that such impacts "will occur with or without the project." 302 F.3d 1104, 1123 (10th Cir. 2002). The Tenth Circuit rejected this view, holding that "Defendants' refusal to study the possibility that the relatively unspoiled nature of this local area might be due, at least in part, to the present lack of a major roadway through it is arbitrary and capricious . . ." *Id.* Moreover, in *Ocean Advocates*, the Ninth Circuit rejected claims by British Petroleum and the USACE that an EA need not consider increased vessel traffic and associated oil spills created by a dock extension project because "market forces" as opposed to the project would dictate whether vessel traffic

increased. 402 F.3d at 867-68. The Court stated that if a "reasonably close causal relationship exists between the [USACE's] issuance of the permit, the environmental effect of increased vessel traffic, and the attendant increased risk of oil spills, the [USACE] had a duty to explore this relationship further in an EIS." *Id* at 868 (citation omitted).

Ignoring for the moment that the EIS inappropriately narrows the availability of the LOMR using inaccurate economic presumptions and analysis (as detailed before), the USCAE's apparent preference to increase truck transportation and fuel consumption to supplant the significant loss of commercial dredging in the LOMRE cannot be divorced from the associated environmental consequences. There will be added emissions from increased pit mining operations, including more fuel burning trucks hauling sand at longer distances. In fact, average shipping distances would increase from 16.3 miles to 103.9 miles, and total shipping distances for sand would increase by 558 million miles. The added trucking and dirt stripping, hauling and mining will cause a significant increase in DPM and GHG emissions, a tremendous increase in fuel consumption, as well as the additional traffic and road wear. Opening new pit mines will result in substantial land disturbance, including impacts to wetlands, streams and groundwater. The USACE disregarded the immediate and long-term environmental consequences of alternative sand and gravel supplies, and therefore, it failed to consider an "important aspect of the problem" before issuing its permits. *Ross v. Fed. Hwy. Admin.*, 162 F.3d 1046, 1050-52 (10th Cir. 1998).

Shifting the burden of sand and gravel production must be quantitatively studied in an EIS. The USACE's failure to quantify emissions means that potentially significant air emissions have not been considered. With little explanation, the USCE simply states that it does not expect dredging associated diesel engines to actually materially contribute to air pollutants. ROD (3-32). Accordingly, a more detailed review must be conducted by the USACE to evaluate the environmental impacts of substantial increases in sand production by open pit mines, along with

the corresponding increases in truck transportation to move the sand from these remote locations. The USACE's decision warrants additional and more detailed investigation. Otherwise, it stands as both an arbitrary and unlawful outcome.

## VI. The Continuous Monitoring Requirements Included In The Permits Are Overly Burdensome, Beyond The Scope Of USACE Authority, Bear No Relation To Protecting Any USACE Interest In Dredging, And Violate The Protections Of The Kansas, Missouri and United States Constitutions.

The Dredgers recognize that monitoring is a practicable and necessary part of the permitting process. Indeed, they have consistently and uniformly agreed that requiring the monitoring of locations when dredge pumps are actually operational is reasonable. But the ROD's demand that the Dredgers continually monitor 24 hours, 7 days a week, 365 days per year—regardless of whether the dredge pumps are operational—is completely unnecessary, unduly burdensome, and entirely arbitrary.

The ROD requires the Dredgers to implement a Dredge Monitoring Plan (DMP) showing how each dredger will monitor, record and report the cutter-head position, cutter-head operating status, extraction tonnage, and the presence of any hard substrates, mussel shells, or unusual concentration of gravel in an "impartial, unbiased, reliable and accurate manner." ROD (6-8). The DMP must also include the specifications of the Dredge Monitoring System (DMS), including sensors, hardware, software, and communications devices the dredger will use to gather data. *Id.* The DMS then must contain automated differential Global Positioning System (DGPS) equipment (or other comparable system). *Id.* While the Dredgers contend that there must be some flexibility with regard to the equipment used to obtain data on location and amount of tonnage,[3] the ROD unquestionably crosses the line separating reasonable and excessive when

[3] As set forth in the specific dredger appeal sections, Limited Leasing Company and J.T.R., Inc. vigorously dispute the ROD's expensive monitoring system requirements. Cost-effective equipment supplying the same data on location and amount of tonnage are suitable alternatives, and should be acceptable to the USACE.

it mandates that the "DMS must always be on, recording cutter-head position and operating status every 5 minutes, 24-hours a day, 365 days a year, **even when the dredge is not operating**." ROD (6-8) (emphasis added); ROD (Biological Assessment 3-19 to 3-20).

The 24/7 continuous monitoring requirement is not supported by any basis in the record, let alone any rational basis. Without question the USACE has the right to know when the impellers of the dredges are active. Some monitoring is of value to determine the location of dredging operations and the volume of materials taken. Monitoring may assist the USACE in identifying any degradation trends and evaluating their relationship to dredging activity. ROD (Biological Assessment 3-9). To require the Dredgers to collect monitoring data for USACE during periods when the boats and vessels are not even operational, however, is wholly unwarranted.

The USACE's permitting requirement also fails to appreciate that not all of the dredgers confine their operations to the Missouri River. For instance, Limited Leasing Company owns four dredges (one of which has not operated in two years due to the poor economy). Limited Leasing moves its dredges between the Missouri and Mississippi Rivers as needed and required. To comply with the monitoring requirement, Limited Leasing is faced with the uncalled-for decision of either outfitting all of its dredges with monitoring equipment, or equipping only some of its dredges and then restricting those dredges to the Missouri River. The first option is cost prohibitive, and the second option unduly restricts its business operations. In any event, the permit as written may be construed by the USACE as requiring monitoring even when the dredges are not operating on the Missouri River—an interpretation, which if intended, is obviously unconscionable on its face.

The USCAE's monitoring directive is extreme in all respects. Notwithstanding the highly intrusive nature of 24/7 monitoring, such a requirement is unduly punitive considering the additional equipment, increased fuel consumption and extra manpower necessary to comply with the ROD's mandate, not to mention the high collection and data processing costs. There is absolutely no evidence in the record that the permit holders have not truthfully and accurately reported their dredging activities. No scientific or regulatory value for such a requirement is offered by the USACE, nor has the United States Coast Guard (or any other federal agency) requested the USACE to implement this inherently invasive regulation.

An agency's decision must be supported by findings that are supported by substantial evidence, and the agency must articulate a "rational connection between the facts found and the choices made." *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962). The USACE's 24/7 monitoring requirement is nowhere close to satisfying this standard. When the impellers of the dredges are running, USACE jurisdiction has merit. All appropriate information can be gained by monitoring during the actual dredging process. As it stands, the 24/7 monitoring requirement constitutes the hallmark of arbitrary decision-making. This degree of monitoring lacks evidentiary support and common sense rationale, falls beyond the scope of the USACE's authority under the Clean Water Act and Rivers and Harbor Act, and violates the Dredgers' constitutional due process and privacy rights. The bottom line is that monitoring requirements must be reasonable. Accordingly, the Dredgers request the Review Officer to completely invalidate the ROD's 24/7 continuous monitoring requirement.

## VII. There Is No Basis For The USACE's Denial Of A 100% Carryover of Annual Authorized Tonnage.

As part of the permitting decision, the USACE "has determined that up to 10% of each Dredger's authorized annual tonnage may be carried over each year as a de minimis amount to be

extracted the following year but the annual tonnage extracted with carryover may never exceed 110% of annual authorized tonnage." ROD (3-40). Under this provision, for example, if a particular permit authorized a Dredger to remove 50,000 tons per year, the Dredger is afforded the discretion to remove only 45,000 tons of material. The Dredger may then carry over the remaining 5,000 tons (or 10%), resulting in a total capacity of 55,000 tons of material (50,000 tons plus 5,000 tons) for the next business year. The Dredgers, however, proposed a 100% carryover whereby the Dredger is afforded the discretion to carry over to the next business year any amount of its unused allotment, which strikes a true balance between economic demand of material and any concerns over bed degradation. The USACE's rejection of this proposal is illogical, and only encourages the mining of material from the Missouri River for storage as opposed to allowing the Dredgers to leave material in the river until it is actually needed. There is simply no basis to reject the carryover of unused tonnage to the following business year, as requested by the Dredgers.

The USACE "agrees that it would generally be good for the river if Dredgers leave sand that they could dredge but don't need in the river. Leaving this quantity would help degraded reaches recover." ROD (3-40). But in the same breath, the USACE rejects the Dredgers' proposed 100% carryover option. Without citing any facts or studies, the USACE summarily contends that carrying over more than 10% would likely result in moderate to substantial bed degradation. ROD (3-40). There is no evidence in the record showing that there is any measureable difference in bed degradation, or difference in risk of bed degradation, if a dredger with a 50,000 ton annual permit: (1) removes 50,000 tons in business year 1 and 50,000 in business year 2; (2) removes 10,000 tons in business year 1 and 90,000 tons in business year 2; or (3) removes 40,000 in business year 1 and 60,000 in business year 2.

Failure to adopt a 100% carryover option creates a "warehousing" policy whereby the Dredgers must dredge to the full limits of their applicable permits every year regardless of their current demand for material and then store the surplus. This "use it or lose it" scenario is cemented by the USACE's focus on the Dredgers' prior tonnage use and permitted limits to determine the Dredgers' future permitted limits. If a Dredger fails to use all of its permitted tonnage because there is no current demand for that amount of material, then it will risk a lower permitted amount in future USACE permitting decisions (when the demand, of course, is much higher). It is a classic Hobson's choice.

The USACE's rejection of the 100% carryover option is directly at odds with the undisputed principles that preserving unneeded tonnage in the river would help degraded reaches recover, and that Dredgers should only remove the material needed on any given year up to their permitted limit. The end result is a non-judicious outcome which ultimately benefits neither the Dredgers' business model nor the USACE's bed degradation priorities. When a poor economic cycle exists, just like the last few years, an individual dredger may only need 50% of its allotted permit limit, and the flexibility to carryover the other 50% to the next year when tonnage beyond the permitted amount may be needed is an eminently reasonable preservation of the riverbed resource. No matter the state of the economy, a dredger with a 50,000 tonnage limit will never be able to remove more than 100,000 tons in a two-year period because the carryover is limited to one year. The USACE's position to the contrary lacks support in the record, and establishes a contradictory policy for bed degradation.

## VIII. The USACE's Actions Are Contrary To Federal Constitutional Law In That The USACE, In Restricting The Dredgers' Access To River Bed Material Have Taken A Property Right Without Adequate Compensation.

The permits issued by the USACE amount to an unlawful taking that was not evaluated properly by the EIS.[4] The BSNP is a creature of law, requiring a channelized portion of the river from mile 0 to 750, or from the mouth near St. Louis, Missouri to near Sioux City, Iowa. The BSNP prevents bank erosion and channel meandering, thereby providing reliable Missouri River navigation. In restricting the Dredgers' permits, the USACE presented an argument that the risk of degradation to the riverbed and the surrounding structures is severe. Yet the USACE has failed or refused, despite requests from members of Congress, to ask for funding to study the problems with the river or to revise the BSNP to decrease the risk of degradation. Unwilling to examine or alter its own practices to minimize the risk, the USACE has unilaterally decided to adopt a public policy of joint and several liability for bed degradation, and place the full burden of remedying the risk on the Missouri Dredgers regardless of its actual contribution. Not only does this amount to an unlawful taking of the Missouri Dredgers' business without just compensation, but it also deprives the States of Kansas and Missouri—the undisputed owners of the river bed—access to its resources.

The law is clear: the States of Missouri and Kansas, not the federal government, own the beds of navigable waterways, including the minerals contained therein and that make up the bed of the waterways. *See* 43 U.S.C. §§ 1301(a)(1), 1301(e), 1311(a) (confirming ownership of lands below navigable waters to be vested with the states). The States permit the dredging of the river and the removal of material. The Dredgers remove state-owned material from the river with

[4] Notably, the USCAE's permitting authority is grounded upon two statutes: the Rivers and Harbors Act and the Clean Water Act. The former provides the USACE authority to protect navigation, while the latter grants the USACE authority to prevent the contamination or removal of wetlands. By attempting to fix bed degradation through the permitting process, the USACE has exceeded its authority under both statutes. The river beds belong to the states, and the Dredgers are authorized to harvest this resource. The USACE is dictating a resource that they lack the authority to police.

the permission of the State and for the benefit of the state in that the Dredgers supply needed material for public improvements. Kansas is even paid a royalty on amounts dredged from the river.

The notion that the USACE can place the entire burden on correcting the degradation problem on private industry without adequate compensation potentially infringes on due process rights and the Tenth Amendment. The USACE also does not have the authority to take away property, or access to property, without adequate compensation. As such, the USACE's analysis fails to consider the impact of degradation caused by the BSNP, fails to address the issue of property rights in the river, and fails to meet the requirements of NEPA and Executive Order 12630—the latter of which governs governmental interference with constitutionally protected property rights and aims to ensure that the federal government's actions are undertaken on a well-reasoned basis with due regard for fiscal accountability.

Responsible fiscal management and fundamental principles of good government require that government decision-makers evaluate carefully the effect of their administrative, regulatory, and legislative actions on constitutionally protected property rights. The failure of Congress to adequately fund USACE' activities for mandated purposes under the BSNP is the proximate cause of the bed degradation problem. The USACE, therefore, must actually contribute to the solution in a fair, equitable, and proportionate manner. By shifting the responsibility to the Dredgers, the USACE is denying the State of Missouri access to its assets and taking private property (the Missouri Dredgers' business) without just compensation or the requisite due process protections.

## IX. The USACE Uses And Relies Upon Unpublished Data And Sources In The ROD And The EIS. The Inclusion Of Such Material, Which Is Not Available To The Dredgers And Is Not Subject To External Analysis Or Peer Review, Is Arbitrary And Capricious And Contrary To Law.

Both the ROD and the EIS are arbitrary, capricious, and flawed because of the extensive reliance on unpublished data and sources. Patterson, March 22, 2011. While federal agencies are allowed to incorporate materials into an EIS by reference to cut down the bulk of the document, "no material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the time allowed for comment." 40 C.F.R. § 1502.21. These unpublished reports and communications, which the EIS and the ROD reference frequently, are not peer-reviewed and are not subject to external analysis by the Dredgers or others and lend credence to a presumption of bias.

By way of example, the USACE relies repeatedly on internal comments by Michael Chapman, of the USACE, regarding the correlation between commercial dredging and degradation and regarding the USACE's policies and past practices regarding the BSNP structures (EIS 10-115). These statements are cited as fact and no other source is provided to verify their accuracy. The Drafters and other interested parties have no way to know what, precisely, was said in the communications or to verify their accuracy.

The Drafters criticized this practice in their comments to the draft EIS. Shorr, September 7, 2010; Shorr, March 24, 2010. The response to the criticism was, "the USACE has cited personal communications or unpublished data only as sources of information for its analysis, not as support for conclusions regarding impacts or their significance" EIS, Response to Comments. Not only is this defense nonsensical, it's inaccurate. If the unpublished information was not used for conclusions, why is it even mentioned and what, if any supporting material was relied upon in its place? It is clear from the text of the EIS that the drafters relied on these communications

as the basis for information that was vital to its analysis. The reliance on material that is not available for review by all interested parties, suggests that the process lacks transparency and taints the reliability of the underlying analysis in the ROD and EIS. This practice violates the guidelines of NEPA and renders the USACE's decision arbitrary and capricious.

## X. The Amount Of Tonnage Reduced In Many Of The Permits Is So Limited That It Cannot Be Measured To Demonstrate Or Determine An Impact On The River Bed. The Inability To Determine A Specific Impact By A Proposed Cut In Production Renders The Action Speculative And Pure Conjecture, And Therefore Arbitrary.

The EIS and the ROD state impose strict limits on commercial dredging under the theory that the cuts to dredging will have some favorable impact on the issue of bed degradation in the LOMR. The reality is that that the USACE will not be able to measure the difference in the river from the reduction in tonnage from previous permits, let alone to determine whether the proposed cuts to commercial dredging will have any benefit or detriment to the overall well-being of the river. Absent any science to suggest that these cuts can be evaluated or whether they would have any discernable effect, the reductions in tonnage from the previous permits are arbitrary.

The question is how the USACE, or any other entity, can measure the difference of a few thousand tons of material over a five-hundred-mile stretch of river. The obvious answer is that it cannot be done. While the proposed cuts will have devastating effects to the Dredgers' businesses, the USACE lacks sufficient data to demonstrate, with any reasonable certainty, that the cuts will have any measurable effect on the LOMR as a whole.

For the smaller dredging operations, the cuts are particularly absurd. For instance, Con-Agg of Missouri, LLC, an entity that is now permitted in the Jefferson City segment, was reduced from 175,000 tons per year to 160,000 tons per year. The cut will be significant to Con-Agg's operations. But to the 120-mile Jefferson City segment, the difference that of fifteen

thousand tons has on the river cannot be measured or evaluated. The USACE had no reason to cut an amount that is so insignificant from such a small producer, as it will never be able to determine the impact of this reduction.

Similarly, Hermann Sand & Gravel, Inc., which is also permitted in the Jefferson City, but also in St. Charles, had its tonnage split between these two segments, which as discussed in Section 2, limits its ability to mine material, and then was cut a total of sixty thousand tons, from 300,000 tons to 240,000 tons overall. This cut represents a cut of twenty percent to Hermann's small operation, a threat to the viability of its business. The USACE, in contrast, will not be able to appraise the difference this cut will have on the issue of river bed degradation.

The cuts to the larger Dredgers, while the numbers are bigger, likely cannot be determined to have any positive or negative difference on the issue of river bed degradation. . Given the imprecise measurements relied upon to reach these arbitrary segment limits (Section 1, supra), the refusal to consider other factors that are significant, if not controlling, influences on river bed degradation (Section 5, supra), and the lack of any data to correlate these cuts with any net effect as to bed degradation, the proposed cuts to the Dredgers' operations will not be calculable. Thus, the USACE's imposition of these cuts was arbitrary and capricious.

## INDIVIDUAL PERMITTING ISSUES

### I. J.T.R., INC., PERMIT NO. P-2789

J.T.R., Inc. operates a contracting dredging operation in the St. Charles segment.

#### A. The tonnage available in the permit can and should be increased.

Global Issue 1 is hereby incorporated by reference. Adequate tonnage exists in the lower river to support the request of the applicant. The decision by the USACE in limiting the tonnage in the permit was arbitrary, capricious, and based on insufficient and incorrect data.

**B. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional.**

Global Issue 6 is hereby incorporated by reference. Based upon the monitoring theory presented J.T.R. boats and equipment would be required, under this Missouri River permit, to report activities and operations on the Mississippi River. No such requirements exist in any Mississippi River dredging permit. The Mississippi River is outside the jurisdiction of this action and the jurisdiction of this ROD for the Missouri River. This provision requiring "tracking" of boats and dredges is outside the legal authority of USACE and wholly vested in the Coast Guard legal domain. This provision is also unconstitutional as more fully stated in Global Issue 6.

**C. The segment amount is arbitrary and capricious, and its distribution and allocation unreasonable.**

Global Issue 2 is hereby incorporated by reference. In addition to the general argument, segment limits in the St. Charles segment inappropriately advance beyond District jurisdictional boundaries creating confusing and differential regulatory positions by the Kansas City District and the St. Louis District. The first fifty miles of the St. Charles Segment are regulated and controlled by the St. Louis. District of the USACE. The remaining 70 miles are regulated by Kansas City. The five Dredgers that hold permits in the St. Charles segment are controlled by segment caps placed by the USACE, as well as several zones designated as protected areas, which are subject to the limit of 300,000 tons per five mile reach. The Dredgers' reaches in this segment also overlap. All of these restrictions on the dredging practices are arbitrary and capricious, in that the Dredgers find themselves competing for the same tonnage and are required to coordinate their efforts and "regulate" their competitors in the segment in order to assure compliance with the permit conditions.

### D. The amount of tonnage at the mouth of the Missouri River and reaches allocated to this permit are underestimated.

Global Issue 1 is hereby incorporated by reference. The mouth of the river and its interface with the Mississippi River is treated the same as all other areas of the river. The sediment deposition, bed load, hydrology and hydraulics are vastly different than any other portion of the river providing material in excess of the amounts indicated in the ROD and EIS.

### E. The permit decision fails to take into account the impact of the Bank Stabilization and Navigation Project.

Global Issue 3 is hereby incorporated by reference.

### F. The permit's limitation of 300,000 tons per 5-mile reach is arbitrary.

Global Issues 1 and 2 are hereby incorporated by reference. JTR dredges in the St. Charles Segment. The Dredgers who hold permits in this segment share reaches, many of which are subject to the 300,000 ton per five mile reach limitation. This restriction places the Dredgers in the position where they are competing for the same tonnage and that they are required to coordinate their efforts and "regulate" their competitors in a segment n order to ensure compliance with permit conditions.

## II. LIMITED LEASING COMPANY, PERMIT NO. P-2788

Limited operates a contracting dredging operation in the St. Charles segment.

### A. The tonnage available in the permit can and should be increased.

Global Issue 1 is hereby incorporated by reference. Adequate tonnage exists in the lower river to support the request of the applicant. The decision by the USACE in limiting the tonnage in the permit was arbitrary, capricious, and based on insufficient and incorrect data.

**B. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional.**

Global Issue 6 is hereby incorporated by reference. Based upon the monitoring theory presented Limited Leasing boats and equipment would be required, under this Missouri River permit, to report activities and operations on the Mississippi River. No such requirements exist in any Mississippi River dredging permits. The Mississippi River is outside the jurisdiction of this action and the jurisdiction of this ROD for the Missouri River. This provision requiring "tracking" of boats and dredges is outside the legal authority of USACE and wholly vested in the Coast Guard legal domain. This provision is also unconstitutional as more fully stated in Global Issue 6.

**C. The segment amount is arbitrary and capricious, and its distribution and allocation unreasonable.**

Global Issue 2 is hereby incorporated by reference. In addition to the Global Issue, segment limits in the St. Charles segment inappropriately advance beyond District jurisdictional boundaries creating confusing and differential regulatory positions by the Kansas City District and the St. Louis District. Multiple applicants are forced to overlap operations and "regulate" competitors operations in the segment.

**D. The amount of tonnage at the mouth of the Missouri River and reaches allocated to this permit are underestimated.**

Global Issue 1 is hereby incorporated by reference. The segment analysis in the ROD and the EIS are inapplicable for the portion of the LOMR in which Limited mines. Limited is permitted in the lower portion of the St. Charles segment, which is the mouth of the Missouri river. The EIS failed to consider that the sediment deposition, bed load, hydrology and hydraulics at the mouth of the river are vastly different from the other portions of the river. The model for calculating bed loads and for determining river degradation did not factor in these

differences, nor did it consider that the river yields additional material at the mouth. The omission of the variables from the EIS's model is an omission of material fact that brings the conclusions of the ROD into question. Therefore, it is inequitable and arbitrary for the USACE to impose caps on Limited's operations in the St. Charles segment that have not taken to account the nature of the LOMR in that segment.

**E. The permit decision fails to take into account the impact of the Bank Stabilization and Navigation Project.**

Global Issue 3 is hereby incorporated by reference.

**F. The permit's limitation of 300,000 tons per 5-mile reach is arbitrary.**

Global Issues 1 and 2 are hereby incorporated by reference. Limited dredges in the St. Charles Segment. The Dredgers who hold permits in this segment share reaches, many of which are subject to the 300,000 ton per five mile reach limitation. This restriction places the Dredgers in the position where they are competing for the same tonnage and that they are required to coordinate their efforts and "regulate" their competitors in a segment in order to ensure compliance with permit conditions.

## III. CAPITAL SAND COMPANY, INC., PERMIT NOS. 2011-361 & 2001-1429

Capital Sand operates and is permitted in the St. Charles, Jefferson City and Waverly segments. They operate sand off loading docks, storage and processing facilities in Washington, Jefferson City, Boonville, Glascow, Carrollton, Brunswick, and Lexington, Missouri.

**A. Adequate tonnage exists to meet the applicant's request at Washington, Missouri, and in the St. Charles segment. The USACE's refusal to allow Capital Sand's request for tonnage was arbitrary and capricious in that it was not based on accurate or complete data.**

Global Issue 1 is hereby incorporated by reference. Under its 2007 permits, Capital had no segment-based tonnage cap, but had previously dredged around 300,000 tons each year at Washington. 2007 Permit 2001-1429. The proposed Permit would limit Capital to 140,000 tons

per year in the St. Charles Segment. Using the 60,000 ton per mile per year number, which the EIS says with 95% confidence will not result in localized bed degradation, would yield 600,000 tons for the ten-mile segment adjacent to Capital Sand's Washington, Missouri operations. *See* EIS (3.4-35). The 80-mile portion of the St. Charles Segment in which Capital is permitted should yield 4,800,000 tons of material each year.

The USACE's own analysis demonstrates that the resource can provide the amount requested by the applicant and its reduction is a decision which is arbitrary and capricious.

**B. Adequate tonnage exists to allow the applicant's request in the Jefferson City segment. The failure to allow the applicant's request was arbitrary and capricious in that it was not based on accurate or complete date.**

Global Issue 1 is hereby incorporated by reference. There is also more material available in the Jefferson City segment than the USACE's permits allow. Using the 60,000 ton per mile per year number, which the EIS says with 95% certainty will not result in localized bed degradation, the Jefferson City segment, which is 120 miles long, could provide 7,200,000 tons of material. *See* EIS (3.4-35). The USACE in the current permit reduced the tonnage to 1,350,000, 150,000 fewer tons than Capital has averaged in Jefferson City in recent years.

We note that the previous standard provided in the 2001 permit was a limit of 1.2 million tons per ten-mile reach. *See* 2007 Permit 2001-1429. The presumption above assumes a limit of 300,000 tons per five-mile reach. This sufficiently addresses concerns of the parties regarding the overconcentration of dredging. The decision to further reduce tonnage in the Jefferson City segment is arbitrary and capricious.

**C. Adequate tonnage exists to allow the applicant's request in the Waverly segment. The failure to allow applicant's request was arbitrary and capricious in that it was not based on accurate or complete date.**

Global Issue 1 hereby incorporated by reference. As the USACE admits, the Waverly segment is aggrading. EIS (3.7). As discussed in Global Issue 1, the Waverly segment's 107

mile length would yield 6,420,000 tons of material each year using the 60,000 ton per mile per year number, which the EIS says with 95% certainty will not result in localized bed degradation. Adopting the more conservative number of 30,000 ton per mile per year, which the USACE states would pose zero risk to localized degradation, the segment would still have 3,210,000 tons of material that can be used each year without risk of bed degradation. In 2008, Capital Sand removed almost 565,000 tons of material from the Waverly segment. In the current permit, Capital Sand's total tonnage in the segment was limited to 370,000 tons. Holliday Sand's total tonnage was increased in the Waverly segment by 770,000 tons for a total of 1,140,000 tons allowed in the segment, despite its aggrading status, and despite the USACE's own numbers that suggest that the requested material is readily available in this segment. Instead, Capital Sand's request was reduced by almost 200,000 tons from 2008 levels.

The decision of the USACE to **cut** Capital Sands' request in the Waverly segment, where its stewardship has resulted in an aggraded segment, is arbitrary and capricious and its request for an additional 500,000 tons should be awarded to Capital Sand in the Waverly segment.

**D. The monitoring provision relating to 24/7, 365 days per year is unreasonable and unconstitutional.**

Global Issue 6 is hereby incorporated by reference.

**E. The USACE assumption that there are alternative sources of sand available is based on inaccurate information. The USACE failed to complete an adequate analysis to determine if material exists to meet the needs and to determine the environmental impact of acquiring sand from other sources.**

Global Issues 4 and 5 are hereby incorporated by reference. The USACE's erroneous reliance on the primary market area definition or 25 mile radius is compounded with respect to Capital Sand, the largest dredge operator in the Jefferson City segment. Capital Sand provided ENTRIX with detailed statistics and maps of their market area which spans **43** counties in Missouri. Applying a uniform 25 mile radius is completely arbitrary given the widespread

geographic area of Capital Sand's operations. A uniform 25 mile radius ignores market realities and results in a skewed urban bias. Accordingly, the USACE's entire alternative sources analysis as applied to Capital Sand is infected by this invalid assumption.

**F. The impact of the reductions provided in the above permits cannot be accurately measured to determine their direct impacts. The assumption that the reduction will have any correlation to river bed degradation lacks any basis in scientific data, making the decision arbitrary.**

Global Issue 10 is hereby incorporated by reference.

**G. The permit decision fails to take into account the impact of the Bank Stabilization and Navigation Project. The decision to omit the analysis of the BSNP was arbitrary and capricious and a direct violation of NEPA.**

Global Issue 3 is hereby incorporated by reference.

**H. Specific denial of Capital Sand's Washington, Missouri permit by the St. Louis District.**

The St. Charles segment has sufficient tonnage to allow the Capital Sand's request for a permit. The failure to allow the Capital Sand's request was arbitrary and capricious in that it was not based on accurate or complete data.

The St. Charles segment is 130 miles long. The St. Louis District oversees the lower 50 miles of the segment, which is where Capital was denied a permit. Applying the 60,000 ton per mile per year number, which the EIS says with 95% certainty will not result in localized bed degradation, the St. Charles segment can support 7,800,000 tons of material, 3,000,000 in the lower 50 miles alone. *See* EIS (3.4-35). This amount could support all four dredging interests at their average production WITH an additional 300,000 tons as requested by Capital's Washington permit application. In addition, as stated in subpart 3.A., using the 60,000 ton per mile per year number, which the EIS says with 95% certainty will not result in localized bed degradation, the removal of 600,000 tons in the areas designated would NOT result in localized bed degradation. Therefore, the St. Louis District was arbitrary and capricious in determining that insufficient

material existed to allow for the request of Capital Sand for their Washington, Missouri operations.

## IV. HERMANN SAND & GRAVEL, LLC, PERMIT NOS. 2011-362 & 2001-1430

Hermann Sand operates and is permitted in the St. Charles and Jefferson City segments. They operate sand off loading docks, storage and processing facilities in Hermann and Jefferson City, Missouri.

### A. Adequate material and tonnage exists to fully support applicant's previous amounts and additional tonnage. The failure to allow the applicant's request was arbitrary and capricious in that it was not based on accurate or complete data.

Global Issue 1 is hereby incorporated by reference. Adequate tonnage exists is this section of the river to support the applicant's request.

The St. Charles segment is 4,800,000 miles long. The portion of the segment that is regulated by the Kansas City branch of the USACE is 80 miles long. Using the 60,000 ton per mile per year number, which the EIS says with 95% confidence will not result in localized bed degradation, the entire St. Charles segment has 7,800,000 tons of material, while the Kansas City portion of the St. Charles segment should produce 4,800,000 tons. In the proposed Permits, the USACE restricts the entire St. Charles segment to 1,710,000 tons, and only 260,000 tons for the upper 80 miles of the segment. Even with four dredgers operating in the segment, there is plenty of available material, under the USACE's adopted standard, to support the requested dredging amounts.

Hermann Sand is the only entity that operates near Hermann, Missouri. The tonnage demand for Hermann is limited and the reduction amount so small when compared to the size and volume of the Missouri River it will be impossible to measure and determine the impact of the reduction to Hermann Sand's permits on the bed.

The Jefferson City segment is 120 miles long. Using the 60,000 ton per mile per year number, which the EIS says with 95% certainty will not result in localized bed degradation, the Jefferson City segment should provide 7,200,000 tons of material. Under the prior permits, there were no segment-based caps. *See* 2007 Permit 2001-1430. The USACE in the current permit reduced Hermann's tonnage in Jefferson City to 120,000 tons per year, less than Hermann's average in the area. Again, the tonnage demand for Hermann is so limited, and the reduction so small, that it would be impossible to determine the impact that granting or denying the request would have on the bed.

We note that the previous standard provided in the 2001 permit was a limit of 1.2 million tons per ten-mile reach. *See* 2007 Permit 2001-1430. The presumption above assumes a limit of 300,000 tons per five-mile reach. This sufficiently addresses concerns of the parties regarding the overconcentration of dredging. The decision to further reduce tonnage in the Hermann area of the St. Charles segment and in the Jefferson City segment is arbitrary and capricious and based on insufficient and incorrect data.

**B. The impact of the reductions provided in the above permits cannot be accurately measured to determine their direct impacts. The assumption that the reduction will have any correlation to river bed degradation lacks any basis in scientific data, making the decision arbitrary.**

The applicant's tonnage was reduced by 60,000 tons total, split between two segments. The ability to measure the impact of such small amounts of material on the bed of one of the nation's largest waterways and drainage areas and has not been demonstrated by USACE.

**C. Placement of the segment line between the company's operations is arbitrary in nature and creates an effective additional reduction in tonnage.**

The applicant's previous permits allowed for total tonnage to be split between its Jefferson City and Hermann sand plants. The segment line restricts the ability to continue such a

practice with no justification in the record of the ability to measure such insignificant amounts or their impact.

**D. The amount of tonnage in the Jefferson City and St. Charles segments is so negligible that it should be exempted from all other permit conditions.**

Global Issue 10 is hereby incorporated by reference.

**E. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional.**

Global Issue 6 is hereby incorporated by reference.

## V. CON-AGG OF MISSOURI, LLC, PERMIT NOS. 2011-364 & 2001-1434

Con-Agg operates and is permitted in the Jefferson City segment. They operate sand off loading docks, storage and processing facilities in Rocheport, Missouri. Their tonnage is dredged by agreement with Capital Sand.

**A. Adequate material and tonnage exists to fully support Con-Agg's previous amounts and additional tonnage. The failure to allow Con-Agg's request was arbitrary and capricious in that it was not based on accurate or complete data.**

Global Issue 1 is hereby incorporated by reference. Adequate tonnage exists is this section of the river to support the applicant's request.

The Jefferson City segment is 120 miles long. Using the 60,000 ton per mile per year number, which the EIS says with 95% certainty will not result in localized bed degradation, the Jefferson City segment should provide 7,200,000 tons of material each year. The USACE in the current permit has reduced this tonnage to 160,000 tons per year. *See* Permit 2011-364. This is a reduction from Con-Agg's average annual tonnage of 175,000 per year. The tonnage demand by Con-Agg, however, is limited and the reduction amount so small when compared to the size and volume of the Missouri River it will be impossible to measure and determine the impact of Con-Agg on the bed.

The decision by the USACE in limiting the tonnage in the permit was arbitrary, capricious, and based on insufficient and incorrect data.

**B. The impact of the reductions provided in the above permits cannot be accurately measured to determine their direct impacts. The assumption that the reduction will have any correlation to river bed degradation lacks any basis in scientific data, making the decision arbitrary.**

The applicant's tonnage was reduced by 15,000 tons. The ability to measure the impact of such small amounts of material on the bed of one of the nation's largest waterways and drainage areas and has not been demonstrated by USACE

**C. The amount of tonnage in the Jefferson City segments is so negligible hat it should be exempted from all other permit conditions.**

Global Issue 10 is incorporated by reference.

**D. The monitoring provision relating to 24/7, 365 days per year, is unreasonable and unconstitutional.**

Global Issue 6 is hereby incorporated by reference.

## CONCLUSION

For all of the reasons set forth above, the Record of Decision's proposed commercial sand dredging permits are arbitrary and capricious, and contrary to law. Accordingly, the Missouri River Dredgers Group respectfully asks the Review Officer to reverse the Record of Decision, and grant the Dredgers the tonnage amounts requested in their original applications. Alternatively, and at a minimum, the Missouri River Dredgers Group requests that the Review Officer issue commercial sand dredging permits with tonnage amounts no less than the Dredgers' previously authorized permit levels. Finally, the Missouri Dredgers Group requests such other and further relief as the Review Officer deems fair, just and equitable.

Dated: May 31, 2011

Respectfully submitted,

LATHROP & GAGE LLP

By: _____

David A. Shorr MO # 41283
dshorr@lathropgage.com
314 E. High Street
Jefferson City, MO 65101
Telephone: (573) 893-4336
Telecopier: (573) 893-5398

and

Carrie E. Josserand MO #50692
cjosserand@lathropgage.com
Matthew K. Corbin KS # 21321
mcorbin@lathropgage.com
Building 82, Suite 1000
10851 Mastin Boulevard
Overland Park, KS 66210-1669
Telephone: (913) 451-5100
Telecopier: (913) 451-0875

*Attorneys for the Missouri River Dredgers Group*