ADMINISTRATIVE APPEAL DECISION
CLEAN WATER ACT
CAPITAL SAND- FILE NO. MVS-2008-00193
ST. LOUIS DISTRICT

ADMINISTRATIVE APPEAL DECISION
CLEAN WATER ACT
MISSOURI RIVER COMMERCIAL DREDGERS APPEAL
MISSOURI RIVER, KANSAS AND MISSOURI
KANSAS CITY AND ST. LOUIS DISTRICTS

DATE: July 8, 2013

Review Officer: Thomas J. Cavanaugh, U.S. Army Corps of Engineers (Corps), South Pacific Division, San Francisco, California

Appellants:

JTR, MVS-2011-00178 (Declined Permit)
Limited Leasing, MVS-2011-00177 (Declined Permit), represented by Brian Viehmann
Hermann Sand & Gravel, NWK-2011-00362(Declined Permit), represented by Steve Engemann,
Capital Sand, NWK-2011-00361(Declined Permit), represented by Steve Bohlken,
Capital Sand, MVS-2008-00193 (Denied Permit), represented by Steve Bohlken

Collectively referred to as the Missouri River Dredgers Group (hereinafter "Appellants")

Counsel representing Appellants, David Shorr, Matt Corbin, and Carrie Josserand of Lathrop & Gage

Authorities: Rivers and Harbors Act of 1899 (33 USC § 403) and Clean Water Act (33 U.S.C. 1344)

Receipt of Request for Appeal: November 7, 2011

Receipt of Administrative Record: November 18, 2011

Appeal Conference: April 11, 2012

Site Visit Date: April 12, 2012

District Representatives:

Corps of Engineers, Kansas City District
Mark Frazier, Regulatory Branch Chief
David Hibbs, Regulatory Project Manager
Cody Wheeler, Regulatory Project Manager
Matthew Jeppson, Office of Counsel

Corps of Engineers, St. Louis District
None attended.

Summary of Decision: The Appellants submitted a Request for Appeal (RFA) on November 7, 2011. The Appellants objected to the permit denial and conditions, such as those lowering dredging tonnage limits relative to previous year's allocations and imposing other limitations, citing ten global reasons for appeal in addition to other issues associated with each of the denied or declined permits. These other issues are largely a restatement of the combined reasons for appeal, but have been separated out as they specifically apply to each of the permits. The ten global reasons for appeal and the permit action-specific issues are addressed in this appeal decision.

This Appeal of four declined proffered permits and one denied permit does not have merit. No further action is required of the Districts.

Background Information: The Kansas City District (NWK), which is part of the Northwestern Division (NWD), and the St. Louis District, which is part of the Mississippi Valley Division (MVD), considered eleven (11) permit applications from eight (8) commercial sand and gravel dredging companies requesting authorization of new or continued sand and gravel extraction operations in the Missouri River from its confluence with the Mississippi River (river mile [RM] 0) upstream to Rulo, Nebraska (RM 498). As stated above, this administrative appeal decision covers the combined appeal of five (of the 11 total) Regulatory permit actions by Missouri River commercial dredgers. The combined request for appeal (RFA) involves Appellants from both MVD and NWD.

The Districts' consideration of the proposed dredging projects is detailed in the "Missouri River Commercial Dredging Final Environmental Impact Statement", February 2011 (FEIS). The Record of Decision (ROD) was signed on 31 March 2011 by Colonel Anthony J. Hofmann, NWK District Commander. Both the ROD and the FEIS were included in the administrative record. The ROD concluded that permits will be granted to Holliday Sand & Gravel Company, LLC; Capital Sand Company, Inc.; Hermann Sand and Gravel, Inc.; Con-Agg of MO, LLC; J.T.R., Inc.; and Limited Leasing Company. Further, the conclusion reached in the ROD is that requests for authorizations for Master's Dredging Company, Inc. and Edward N. Rau Contractor Company, and for Capital Sand Company, Inc. to expand their operations between river miles 40 and 50, are denied, based on the analyses and resulting conclusions, which are contained in the ROD's supporting documentation.

Activities to be conducted under the permits include dredging of river sediments from the navigable waters of the lower Missouri River (LOMR), extraction of suitable sand and gravel, and return (discharge) of some of the dredged material into the river. These activities are regulated under Section 10 of the Rivers and Harbors Act. Discharge of dredged material into a navigable water of the United States is also regulated under Section 404 of the Clean Water Act (CWA).

The Project Area, as described in Section 1.3 and 2.2 of the FEIS, consists of the lower 498-mile reach of the LOMR. This reach is divided into five segments for defining alternatives and conducting environmental analysis. The segments were based primarily on the intersection of the LOMR with major tributaries, bedrock geology, slope breaks, width of the alluvial floodplain, and the USGS gage locations where the sediment supply was likely to change and could be measured, in order to facilitate a more specific environmental impact assessment and enable the USACE to better determine the appropriate dredging level for each segment based on the local

bed material load. The segments include St. Joseph (RM 391 – RM 498), Kansas City (RM 357 – RM 391), Waverly (RM 250 – RM 357), Jefferson City (RM 130 – RM 250), and St. Charles (RM 0 – RM 130).

Commercial sand and gravel extracted from the LOMR is processed and distributed at sand plants adjacent to the river, some of which are owned and operated by Appellants; there are 18 existing plants.

The table below[1] lists the previously authorized, 2004-2008 annual average, and Appellants' proposed dredging quantities by river segment and dredging company. The table also lists the four alternatives considered in the FEIS; the shaded alternative in each segment is the Districts' Environmentally Preferred (permissible) Alternative.

Segment		Previously Authorized	Annual Average (2004–2008)	Proposed Action	No Action Alternative	Alternative A	Alternative B	Alternative C
St. Joseph	**Total**	**360,000**	**326,928**	**1,150,000**	**0**	**350,000**	**860,000**	**330,000**
	Holliday Sand	360,000	326,928	1,150,000	0	350,000	860,000	330,000
Kansas City	**Total**	**1,300,000**	**2,520,107**	**4,060,000**	**0**	**540,000***	**1,230,000**	**2,520,000**
	Holliday Sand	1,300,000	2,520,107	3,060,000	0	540,000*	1,230,000	2,520,000
	Master's Dredging	0	0	1,000,000	0	0	0	0
Waverly	**Total**	**1,254,492**	**815,505**	**1,005,600**	**0**	**500,000**	**1,140,000**	**820,000**
	Holliday Sand	500,000	446,385	340,000	0	270,000	770,000	450,000
	Capital Sand	754,492	369,120	665,600	0	230,000	370,000	370,000
Jefferson City	**Total**	**1,286,736**	**1,633,852**	**2,750,000**	**0**	**430,000**	**980,000**	**1,630,000**
	Capital Sand	1,017,292	1,354,427	2,000,000	0	360,000	810,000	1,350,000
	Con-Agg	175,000	159,571	250,000	0	40,000	100,000	160,000
	Hermann Sand	94,444	119,854	500,000	0	30,000	70,000	120,000
St. Charles	**Total**	**3,532,022**	**1,706,895**	**4,384,400**	**0**	**370,000**	**840,000**	**1,710,000**
	Capital Sand	576,466	136,463	1,034,400	0	30,000	70,000	140,000
	Hermann Sand	205,556	118,666	500,000	0	30,000	60,000	120,000
	Jotori Dredging	1,550,000	461,704	1,550,000	0	100,000	230,000	460,000
	Limited Leasing	1,200,000	990,062	1,200,000	0	210,000	480,000	990,000
	Edward N. Rau	0	0	100,000	0	0	0	0
Total by Alternative		**7,733,250**	**7,003,287**	**13,350,000**	**0**	**2,190,000**	**5,050,000**	**7,010,000**
Environmentally Preferred Alternative Total							**5,880,000**	

* This is the target quantity, following a three year phase in.

[1] From document prepared by NWK staff, on 21 December 2010, titled "Draft MO River Dredging Permit Decision"

The Districts' August 2009, "Missouri River Bed Degradation Reconnaissance Study Report" concluded that recent changes in average water surface and river bed elevations have occurred along major portions of the LOMR. The District noted that the greatest degradation had taken place in those portions of the LOMR that had experienced the greatest amount of dredging. Commercial dredging contributions to river bed degradation (the lowering of the elevation of the river bottom) were treated in the FEIS and ROD and were a central factor in the decisions on all eleven permit applications considered in the FEIS, including the five that are the subject of this appeal decision. Factors other than commercial dredging that are related to degradation such as reduction in sediment loads by dams, flow modification by regulation, major flood events, dikes and structures, river cutoffs, and commercial dredging for sand and aggregate were sufficiently and closely considered in the FEIS and ROD.

The ROD concluded that limitations on the quantity by segment, and also strict requirements to disperse or spread-out operations over a wider geographic area are necessary to ensure commercial dredging projects on the LOMR are in the overall public interest and in compliance with the CWA Section 404(b)(1) Guidelines. The Districts' decision included a limit on the amount of sediments extracted from any five (5) mile reach by the Appellants.

The allocations among dredgers in the proffered or denied permits are derived from and generally proportional to the recent (2004-2008) averages, with the exception of Holliday. The Holliday allocation in the Kansas City segment is less than the recent average (540,000 tons vs. 2,520,000 tons), whereas, the Holliday allocation in the adjacent St. Joseph (860,000 vs. 327,000 tons) and Waverly (1,140,000 vs. 816,000 tons) segments is greater than the recent averages.

Following the receipt of the initial proffered permits and the denial from NWK and MVS, the Appellants submitted an RFA to NWD and MVD. The Appellants RFA was forwarded to and evaluated by the Districts as a request for reconsideration, in accordance with the requirements of 33 C.F.R. § 331.2. That reevaluation is described in the joint NWK and MVS *District Reconsideration Memorandum,* Memorandum for Record, Subject: Reconsideration of Proffered Missouri River Commercial Dredging Permits, 7 September 2011 (Reconsideration Memorandum). Proffered permits were provided to the Appellants following reconsideration with changes described in the Reconsideration Memorandum.

The Appellants' RFA was received by NWD and MVD on November 7, 2011.

Appeal Review Standards: In accordance with the Corps Administrative Appeals Process, the Division Engineer will disapprove the entirety of or any part of the District Engineer's decision only if he determines that the decision on some relevant matter was arbitrary, capricious, an abuse of discretion, not supported by substantial evidence in the AR, or plainly contrary to a requirement of law, regulation, an Executive Order, or officially promulgated Corps policy guidance. The Division Engineer will not attempt to substitute his judgment for that of the District Engineer regarding a matter of fact, so long as the District Engineer's determination was supported by substantial evidence in the AR, or regarding any other matter if the District Engineer's determination was reasonable and within the zone of discretion delegated to the District Engineer by Corps regulations, 33 C.F.R. § 331.9.

"Relief Requested": The Appellants requested that the Division Engineer reverse the FEIS, Record of Decision and that they be granted the tonnage amounts requested in their original permit applications. Alternatively, and at a minimum, the Appellants requested that the Division Engineer issue commercial dredging permits with tonnage amounts no less than the amounts previously authorized.

APPEAL EVALUATION, FINDINGS, and INSTRUCTIONS to the DISTRICT ENGINEERS

Information Received and its Disposal During the Appeal Review:

33 C.F.R. § 331.3(a) sets the authority of the Division Engineer to make the final decision on the merits of appeals. The Division Engineer does not have authority under the appeal process to make a final decision to issue or deny any particular permit; that authority remains with the District Engineer. Upon appeal of the District Engineer's decision, the Division Engineer or his RO conducts an independent review of the AR to address the reasons for appeal cited by the Appellant. The AR is limited to information contained in the record by the date of the NAP. Pursuant to 33 C.F.R. § 331.2, no new information may be submitted on appeal. Neither the Appellant nor the District may present new information. To assist the Division Engineer in making a decision on the appeal, the RO may allow the parties to interpret, clarify, or explain issues and information already contained in the AR. Such interpretation, clarification, or explanation does not become part of the District's AR, because the District Engineer did not consider it in making the decision on the permit action. However, in accordance with 33 C.F.R. § 331.7(f), the Division Engineer may use such interpretation, clarification, or explanation in determining whether the AR provides an adequate and reasonable basis to support the District Engineer's decision.

The administrative appeal was evaluated on the Districts' administrative record, the Appellants' Request for Appeal, and discussions at the appeal conference and site visits with the Appellants and the District.

REASON 1: The Dredgers appeal the tonnage limits imposed on each individual dredger in the proffered permits in that the adoption of these limits is arbitrary and capricious and that tonnage limits are based on inaccurate and incomplete data.

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: In the RFA, Appellants argue that: 1) The calculations and rationale upon which the imposed tonnage limits were based are incorrect or used incomplete data; 2) Data concerning the cause of river degradation was omitted; 3) The tonnage limits were based upon unsupported and incorrect presumptions; and 4) Long term river degradation cannot be attributed to commercial dredging and that limiting commercial dredging would not positively impact bed degradation.

During the appeal conference, the Appellants clarified their assertion that the Districts' analysis is flawed because it compares the dredgers' output to the bed load measured for only one particular year (2007), thus comparing the river as it existed at one point in time to dredging over a ten-year span (1998-2007), The Appellants asserted that, in order to establish any correlation between dredging practices and flow amounts, the Districts should have compared annual dredging numbers with the measurement of the river for the correlating year.

First, the Districts' calculations and rationale are contained in Sections 2.4.1, 3.4.6.3, and Appendix A of the FEIS. The Appellants raised concerns regarding the calculations and rationale upon which tonnage limits were based during the permit evaluation and the Districts addressed these concerns in Section 3 of the ROD. This argument represents a technical dispute between experts. While the Appellants dispute the Districts' methodology, we find that the Districts' analysis was well-reasoned and supported in the record.

Second, the AR in Appendix A of the FEIS describes the data sources and methods used to analyze potential impacts of dredging on river bed degradation. This includes an analysis performed to estimate bed material load as a component of the sediment budget, the analysis of hydroacoustic bed elevation data, and an analysis to determine whether segments at three gage locations were in equilibrium. The Districts included data and details that support the geomorphic descriptions and analyses in Sections 3.4 and 4.2 of the FEIS.

Third, the AR provides ample and compelling evidence that degradation is occurring. The AR shows, in Section 2.4.1 of the FEIS, "Rationale for Setting Alternative Dredging Amounts", that available evidence suggests that commercial dredging has exacerbated river bed degradation on the Missouri River. In addition, the FEIS and ROD clearly identified multiple factors contributing to degradation and do not attribute degradation to dredging only. Section 3.4.6.3 of the FEIS, "Potential Causes of River Bed Degradation", identified several factors that may be contributing to degradation in the Kansas City and other segments of the LOMR. These include reduction in sediment loads by dams, flow modification by regulation, major flood events, dikes and structures, river cutoffs, and commercial dredging for sand and aggregate. Each of these factors is then discussed in that section of the FEIS. Based on the FEIS conclusions, the Districts concluded that there is evidence that dredging has contributed to degradation at several locations on the LOMR. The analyses show a strong correlation between the locations, time frames, and quantities of dredging in the LOMR and degradation of the river bed. The Districts concluded that dredging contributes to degradation by removing considerable amounts of sediment from the river bed relative to the available annual bed material load.

In the ROD, under "General Comments", page 3-32, the Districts cite the Missouri River Bed Degradation Reconnaissance Study (Reconnaissance Study). Congress authorized and appropriated general investigation funds through the Energy and Water Development Appropriations Act of 2008 for the Reconnaissance Study. The Reconnaissance Study, completed in 2009, evaluated effects of degradation on federal and non-federal infrastructure along the LOMR. The study looked broadly at the causes of and potential solutions to river bed degradation of the Missouri River between Rulo, Nebraska and St. Louis, Missouri. The findings demonstrated that river bed degradation in the lower 498 miles of the Missouri River is the result of a combination of causes. The study concluded that data collected over the previous 15 years suggest that the increased dredging take, working in concert with the Missouri River Bank Stabilization and Navigation Project (BSNP), has become the dominant cause of river bed

degradation.(p.25) The Districts' EIS for the Appellants' projects evaluated five separate and distinct river segments: St. Charles (river mile [RM] 0 – RM 130; Mississippi River to Osage River); Jefferson City (RM 130 – RM 250; Osage River to Grand River); Waverly (RM 250 – RM 357; Grand River to Blue River); Kansas City (RM 357 – RM 391; Blue River to Platte River); and St. Joseph (RM 391 – RM 498; Platte River to Rulo, Nebraska).

During the appeal conference the Kansas City District explained, as detailed in the FEIS (Section 3.4.6.3 of the FEIS, "Potential Causes of River Bed Degradation") that there is a strong correlation between the historic level of dredging and the rate of degradation. The FEIS, Environmentally Preferable Alternative was determined to be the highest level of dredging that was expected to result in no more than slight degradation in the future.

Further, the Districts concluded that the annual extraction limits of the proffered permits would result in no more than slight degradation in the short-term and long-term. As discussed in Sections 4.2.1.1, 4.2.1.2, and 4.2.1.3 of the ROD, the effects of dredging on infrastructure, federally listed species, and cultural resources are directly related to the amount of degradation that is expected to occur. If degradation is limited to "no more than slight in the short-term and long-term", then the effects on these three resource areas are expected to be minimal. The Districts concluded and the record shows that more than slight degradation in any segment of the river would result in additional expenditures in those segments for infrastructure repair, maintenance, and replacement and would increase the potential for levee failure and jeopardize billions of dollars in investment protected by the regional levee systems. The conclusion reached in the ROD shows that the alternative that resulted in no more than slight degradation is the Least Environmentally Damaging Practicable Alternative (LEDPA), in compliance with the Section 404(b)(1) Guidelines of the CWA, and is not contrary to the public interest.

The AR shows that the Districts' position on imposing constraints on dredging, even though it is only one of many contributing factors to degradation, is a reasonable conclusion based on the analysis of the FEIS.

Finally, the fourth part of this reason for appeal is the Appellants' contention that the Districts did not demonstrate that limiting commercial dredging will positively impact bed degradation. The Districts concluded, in Section 4.2.2.2 of the FEIS, that aggradations could occur in areas affected by past dredging when proposed dredging would be less than past dredging. Further, the Districts found that additional analysis of historic dredging data suggested that if dredging in degraded areas around the existing sand plants was reduced, that dredging levels might be allowed to increase somewhat outside the degraded areas. The Districts' decision of overall and localized tonnage limits is supported in Sections 2.4.1, 3.4.6.3, and Appendix A of the FEIS.

While Section 4.2.2.2 of the FEIS concludes that aggradations could occur in areas affected by past dredging when proposed dredging would be less than past dredging, it goes on to state that because the Missouri River Bank Stabilization and Navigation Project (BSNP) was designed to maintain a self scouring navigation channel that reduces deposition, the BSNP may prevent a degraded reach from recovering even if commercial dredging is reduced. Even so, the AR shows that the Districts have outlined a course of action to monitor data and information as it becomes available during the permit and dredging cycle in order to determine whether dredging tonnages can be increased incrementally within some or all segments.

While the Appellants have suggested that the adoption of tonnage limits is arbitrary and capricious and that limits are based on inaccurate and incomplete data with differing considerations and potential conclusions (along with proposing a different approach to the analysis), we find that the Districts' analysis was reasonable and well supported in the AR. Although competing methodologies exist, the methodology used by the Districts had a rational basis and took into consideration the relevant factors.

Under the "arbitrary and capricious" standard, a finding will be given deference unless it has no reasonable basis. In other words, to be "arbitrary and capricious" there would be an absence of a rational connection between the facts found and the choice made. There would be a clear error of judgment; an action not based upon consideration of relevant factors, an abuse of discretion, failure to be in accordance with law, or failure to observe a procedure required by law. [Natural Resources Defense Council, Inc. v. United States EPA, 966 F.2d 1292, 1297 (9th Cir. 1992)]

The Districts' decision was not arbitrary and capricious. The AR shows a rational connection between the facts found and the Districts' conclusions and decision. There is no identifiable procedural or substantive reason to remand the decision on this reason for appeal.

As a result, this reason for appeal does not have merit.

REASON 2: The segments, fixed segment boundaries, and tonnage limits within the segments are arbitrary, not supported by the administrative record, and contrary to USACE's stated objective of reducing concentrated dredging in areas of the LOMR.

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: In the RFA, the Appellant stated that the segment boundaries are arbitrary and bear little relation to the risk of degradation or the operational characteristics of the dredging industry.

The AR shows that in Section 3.3 of the FEIS, the Districts concluded that it was appropriate to break the river up into segments scientifically based on natural factors including major tributaries, bedrock geology, slope breaks, width of the alluvial floodplain, and the US Geographical Survey (USGS) gage locations where the sediment supply was likely to change and could be measured. The record shows that the method the Districts employed is scientifically backed and reasonable.

Next, limitation of tonnage is addressed above in this appeal decision document under the first reason for appeal, so only a brief summary is provided here. The AR shows, in Section 2.4.1, 3.4.6.3, and Appendix A of the FEIS, the tonnage limits within the segments were identified through the Districts' review of factors including the record of previous dredging totals, analysis of bed-material load estimates, and recent and historical degradation and the effects of that degradation on the various environmental factors.

While the Appellants assert that increased aggradations in some areas should serve as the basis for increasing dredging allocations, the Districts' analysis suggests that recent aggradation is not

confined to the times and locations where dike modifications have occurred and is likely the result of increased flows in the past few years, along with a reduction in commercial dredging. Section 2.7 of the FEIS identifies the Environmentally Preferred Alternative and explains why it was selected. Section 4.2 of the ROD discusses the key environmental and public factors discussed in the FEIS and identifies the Least Environmentally Damaging Practicable Alternative. In addition to the Appellants' proposed project, the Districts analyzed the no action alternative and alternatives that would allow less tonnage to be removed from the LOMR, as depicted in the chart included in the 'Background Information', above. The Districts identified the Environmentally Preferred Alternative and explained why it was selected in Section 2.7 of the FEIS. In Section 4.2 of the ROD, the Districts discuss the key environmental and public factors considered in the FEIS and identify the Least Environmentally Damaging Practicable Alternative (LEDPA)[2].

As stated above in response to Reason for Appeal No. 1, the analysis completed under the FEIS was reasonable and well supported within the administrative record. The Districts had a rational basis and took into consideration the relevant factors when identifying 'segments' within the rivers' reach, and are therefore not arbitrary and capricious.

As a result this reason for appeal does not have merit.

REASON 3: The Districts did not consider the effects of the BSNP, upstream dams, and other structures that reduce water flow and contribute to bed degradation in determining tonnage limits for the dredgers.

FINDING: This reason for appeal does not have merit.

ACTION: No action is required

DISCUSSION: In the RFA, the Appellants indicated that the Districts did not consider the effects of the BSNP, upstream dams, and other structures that reduce water flow and contribute to bed degradation in determining tonnage limits for the dredgers. The Appellants asserted 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 BSNP are major contributors to river degradation. The Appellants asserted that the Districts were arbitrary in limiting the scope of the FEIS and refusing to consider these structures, which are controlled by the USACE, in their analysis of river bed degradation. The Appellants stated that, without considering all major causes of bed degradation, it is impossible for the Districts to assign a causal risk relationship due to dredging activities or determine whether reducing dredging activities will have any significant benefit to reducing bed degradation.

[2] The Corps is bound by the Clean Water Act Section 404(b)(1) Guidelines (Guidelines), which were published by the Environmental Protection Agency, at 40 CFR Part 230 on December 24, 1980. The fundamental precept of the Guidelines is that discharges of dredged or fill material into waters of the United States, including wetlands, should not occur unless it can be demonstrated that such discharges, either individually or cumulatively, will not result in unacceptable adverse effects on the aquatic ecosystem. The Guidelines specifically require that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." The alternative which can be permitted by the Corps is referred to as the LEDPA.

The Districts' consideration of the effects of the upstream dams and reservoirs and the BSNP as potential contributors to bed degradation is discussed as part of the existing environment in Chapter 3 of the FEIS as well as part of cumulative impacts described in Chapter 5 of the FEIS. Specific consideration of the effects of the BNSP, upstream dams, and other structures is found in Section 5.2 of the FEIS.

Sections 3.4.6.2 and shown on Figures 3.4-31 and 3.4-32 of the FEIS, indicate that bed degradation has occurred at most locations where dredging occurs and is most severe in intensely dredged areas around the sand plants in Kansas City, Jefferson City, and St. Louis/St. Charles. In Section 3.5 of the FEIS and Section 4.2.1.1 of the ROD, it is indicated that the most severely degraded reaches are also located in cities with more levees, revetments, drinking water and industrial water intakes, bridges, and pipeline crossings located on the LOMR than occur in rural reaches of those segments or in the Waverly and St. Joseph segments. The Kansas City segment, according to the FEIS, has degraded approximately 12 feet since 1940, which has resulted in failed revetments and dikes, collapsed river banks, damaged or disabled water intakes, damaged bridges on tributaries, damaged levee toes, and failed outfalls. Based on the impacts to infrastructure already observed in the most degraded Kansas City segment, the FEIS concluded that it is likely that other segments, particularly the Jefferson City and St. Charles segments, would experience adverse impacts with the occurrence of moderate to substantial degradation in the long-term future. The FEIS indicates that adverse impacts that could be expected include compromised performance of water intakes that provide drinking, cooling, and industrial process water, which would require expensive modifications to intake structures, premature pump wear, and damage that threatens the reliability of electric generation and public drinking water supply; scouring of existing bridge foundations (particularly on tributaries near the LOMR); exposure of and/or damage to petrochemical, sewer, or water pipelines (and associated accidental releases) under the river; and bank and revetment failure that could impair navigation and threaten the integrity of nearby levees. Section 4.2.1.5 of the ROD and Section 4.10 of the FEIS conclude that the economic effects related to continued river bed degradation are difficult to quantify but would be proportional to the amount of degradation expected to occur. Further the FEIS states that additional degradation in any segment of the river would result in additional expenditures in those segments for infrastructure repair, maintenance, and replacement and would increase the potential for levee failure and jeopardize billions of dollars in investment protected by the regional levee systems. However, the ROD's conclusion that the annual extraction limits of the proffered permits, with the dredging concentration limits and a monitoring and adaptive management framework, should result in no more than slight degradation in the short-term and long-term, is the LEDPA, complies with the Section 404(b)(1) Guidelines, and is not contrary to the public interest.

The AR shows that the Districts fulfilled requirements of both NEPA (40 C.F.R. 1508.7) and the CWA 404(b)(1) Guidelines (40 C.F.R. 230.11(a)), to evaluate the cumulative impacts of the proposed federal action on the environment. The District analyzed the impacts associated with BSNP as part of its cumulative impacts assessment in Chapter 5 of the FEIS and Section 4.2.2 of the ROD. There are no identifiable procedural or substantive reasons to remand the decision.

Therefore, this reason for appeal does not have merit.

REASON 4: The Districts did not adequately support a determination that pit mines and that Kansas and Mississippi River dredging could serve as alternate sources of sand, which could make up for reduced production resulting from tonnage limits in the proffered permits.

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: In the RFA, the Appellants indicated that the Districts relied on improper assumptions regarding alternate sources of sand. The Appellants asserted that the Districts assumed, without evidence, that pit mines can be constructed to replace the decreased production from Missouri River dredging. The Appellants contend that the Districts' assumption that dredging on the Kansas and Mississippi Rivers could supplement supplies from the Missouri is not supported by evidence provided by the various parties engaged in dredging on those rivers.

The Districts' analysis of the capacity of alternate sources to replace reduced supplies from the LOMR under the various project alternatives is presented in Section 2.3.2.1 and Section 2.3.2.2 of the FEIS. Responses to public comments on the subject, given in the Draft EIS, are addressed on pages 10-13 and 10-14 of the FEIS. The Districts stated that estimates of additional capacity to produce sand and gravel from the Kansas and Mississippi Rivers were based on the difference between maximum permitted levels of existing dredging permits and historical production data reported by the USACE. The Districts' conclusion, based on this information, was that there is currently authorized, but unused, sand production capacity in these river systems that represents a short-term alternate source of sand and gravel in the region. The FEIS also estimated the excess capacity of existing sand and gravel mining operations that could potentially serve as alternate sources to material dredged from the LOMR. The FEIS stated that actual production data for individual mines were not available from the Missouri Department of Natural Resources (MDNR), as this information is considered confidential and proprietary. Further, because of confidentiality restrictions, the Districts stated that it was not feasible to query mining operators about their available capital and production capacity. As a result, the Districts estimated excess capacity based on the difference between peak production periods and current production levels, and the assumption that sand and gravel production could at least return to peak levels if needed to help offset reductions in LOMR dredging in the short term. The Districts acknowledged that the figures reported in the EIS for available capacity are only planning-level estimates. The Districts also considered the capacity of alternate sources to meet road construction material specifications as required by the Missouri Department of Transportation (MoDOT). This analysis is based on (1) the estimated quantity of sand and gravel from the LOMR that has been historically used by the MoDOT (i.e., baseline demand); and (2) available capacity at sand and gravel mining operations that have been identified as meeting MoDOT specifications. The Districts concluded that alternate sources which could provide material meeting MoDOT specifications include the Kansas, Mississippi, and Meramec Rivers, as well as other approved land-based sources of Class A sand identified by the MoDOT. (FEIS pages 10-13 and 10-14)

The Districts concluded, based on the FEIS analyses, that these existing sources would be able to produce the amount of replacement sand and gravel supplies needed under all the alternatives, including the No Action Alternative in the near term. The FEIS acknowledged that depending more on the existing open-pit mines and quarries would deplete the reserves of those non-renewable operations at a faster rate, could stress the renewable Kansas and Mississippi River

sources, and would result in the need for new mining operations to restore long-term equilibrium in the sand and gravel market in Missouri. This is more fully discussed under Global Permitting Issue 4 in the Reconsideration Memorandum, and in Section 2.3.2 of the FEIS.

As stated above, in response to reason 1, while the Appellants have suggested different conclusions, the Districts' analysis was reasonable and well supported in the FEIS. The Districts' conclusion that alternate sources of sand could produce sufficient sand to make up for the reduction in dredging in the lower Missouri River in the near term was reasonably supported.

Therefore, this reason for appeal does not have merit.

REASON 5: The Districts did not adequately consider the adverse environmental consequences of pit mining versus the risk of bed degradation from the dredgers proposed operations.

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: In the RFA, the Appellants indicated that the Districts did not adequately consider the adverse environmental consequences of pit mining versus the risk of bed degradation from the dredgers' proposed operations. The Appellants asserted that the Districts were obligated to consider increases in air pollution and truck transportation under NEPA and the practicability and environmental impact of any alternatives considered.

The Districts addressed the relative impacts of commercial dredging in the Missouri River and the impacts of obtaining sand and gravel from alternate sources in each resource section of Chapter 4 of the FEIS. The potential impacts on trucking, agricultural lands, and emissions were addressed along with impacts on other resource areas. The impacts of the use and development of alternate sources were addressed with the available data. The Districts indicated that, by necessity, the analysis was less geographically specific, as it was not possible to identify how production and technology within the market may respond, or to specify the actual locations of expanded or new mining operations.

The AR shows that relative impacts of commercial dredging in the Missouri River and the impacts of obtaining sand and gravel from alternate sources were considered in the resource section of Chapter 4 of the EIS. The District's conclusions were supported and there is no procedural reason to remand the decision.

Therefore, this reason for appeal does not have merit.

REASON 6: The District's cumulative effects analysis does not provide a sufficiently detailed assessment of past, present, and future projects that would be appropriate to consider, relative to dredging operations in the Missouri River.

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: In the RFA, the Appellants stated that the Districts' cumulative effects analysis does not provide a sufficiently detailed assessment of past, present, and future projects that would be appropriate to consider, relative to dredging operations in the Missouri River. The Appellants asserted that the cumulative impacts analysis in the FEIS is simply a list of the types of programs that could potentially affect the lower Missouri River.

The AR shows that, in section 5 of the FEIS, the Districts evaluated the incremental impact of the proposed dredging on the environment along with the other past, present, and reasonably foreseeable future actions. Considering the past, present, and reasonably foreseeable future actions is required by NEPA and provides a context for assessing cumulative impacts. The inclusion of other actions occurring in proximity to the proposed action is a necessary part of evaluating cumulative effects. Past, present, and future actions discussed included the following: the Master Water Control Manual; the BSNP; the 2003 biological opinion on the operation of the Missouri River Mainstem Reservoir System; operation of the Missouri River Bank Stabilization and Navigation Project; and operation of the Kansas River reservoir system; the Missouri River Recovery Program; the Missouri River Ecosystem Restoration Plan; the Missouri River Fish and Wildlife Mitigation Project; the Big Muddy National Fish and Wildlife Refuge expansion; levee construction; transportation improvement projects; energy development projects; the Missouri River Bed Degradation Feasibility Study; the Missouri River Recovery and Associated Management Study; the Missouri River Authorized Purposes Study; and the Lewis and Clarke Sediment Management Study. The resources evaluated in the EIS for potential cumulative affect included geomorphology, water quality, aquatic resources, economics, cultural resources, infrastructure, and greenhouse gas emissions and climate change. The EIS determined that past, present, and future actions have all affected geomorphology (primarily changes in surface water levels and river bed degradation). The EIS also concluded that the effects on water quality, aquatic resources, cultural resources, and infrastructure were generally directly related to the geomorphology effects. In addition, the EIS concluded the proposed dredging would result in an additive impact on river bed degradation that is not insignificant. Finally, the EIS assessed cumulative impacts associated with the sand and gravel mining industry of different levels of dredging and economic impacts along with an incremental impact of the proposed dredging on the environment. The AR shows a discussion of these concerns in response to Global Permitting Issue 3, in the Reconsideration Memorandum and in Chapter 5 of the FEIS.

The AR shows that the Districts' cumulative impact assessment evaluated changes that are attributable to the proposed dredging activities when added to other past, present, and reasonably foreseeable future actions. The Districts' assessment included consideration of those cumulative impacts that can result from individually minor but collectively significant actions taking place over a period of time. The Districts stated understanding of the purpose of cumulative impact analysis is correct in that it helps determine whether the proposed action is going to be the action that causes the cumulative impacts to reach a threshold of unacceptable impacts (in terms of the public interest) to the resources of concern. The Districts' execution of this analysis uses accurate and available information. Even in the presence of other potentially substantial causes to a problem, such as those mentioned by the Appellants, the Districts' method of assessment was reasonable and supported their conclusion that the action, as proposed, was not in the public interest based on its incremental contribution to the degradation of a severely degraded resource.

As a result, this reason for appeal does not have merit.

REASON 7: The ROD's provision restricting the Appellants to a 10% carryover of authorized annual tonnage is not supported by facts in the administrative record.

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: In the RFA, the Appellants asserted that the decision of the Districts to restrict the dredgers to a 10% carryover of authorized annual tonnage is not supported by facts in the administrative record. The Appellants contend that allowing the dredgers to carry over their allotted tonnage to the following permit year keeps unneeded sand resources in the river and promotes the interests of both dredgers and USACE.

The Appellants stated that they had asked for a carryover option whereby each dredger is afforded the discretion to carry over to the next business year any amount of its unused authorized allotment, which they believed strikes a true balance between economic demand for material and any concerns over bed degradation. The Appellants asserted that the Districts' rejection of this suggestion 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. They believe that, without citing any facts or studies, the Districts summarily concluded that carrying over more than 10% would likely result in moderate to substantial bed degradation.

In the FEIS ROD, the Districts concluded that leaving unneeded sand in the river would help degraded reaches recover. The Districts further concluded that carrying over a large amount of sand in one or more years could result in the extraction of an amount that is larger than the bed load can accommodate and cause more than slight degradation. The Districts used the LEDPA for the St. Charles segment as an example, as it authorized extraction of the highest percentage of any segment. The Districts concluded that, if 10% of the segment limit could be carried over, that would equate to 4.5% of the bed load in the St. Charles segment and less for all others. The Districts indicated that, if more was carried over in all of the segments, the analysis behind the selected alternatives would no longer support permitting the overall allotted amounts. The Districts stated that carrying over more than this would likely result in moderate to substantial bed degradation. The Districts concluded that this level of bed degradation could cause potentially increased significant impacts on resources including, but not limited to, water intakes, navigation, flood control, endangered species, and cultural resources and would be contrary to the public interest. The Districts 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.

During the appeal conference, the District indicated that following a request from the dredgers after the EIS analysis was substantially complete, it assessed whether the information would support some amount of carryover. While the Appellant disagrees with the Districts' conclusions, the Districts' analysis had a rational basis and took into consideration the relevant factors. The District stated that, as described in the preceding paragraph, the Districts determined that carrying over 10% of the annual segment limit each year would be a *de minimis* amount and therefore would not have a significant effect. The District stated that 10% of the

segment limits would equate to no more than 4.5% of the bed load in any segment. The District stated that the analysis led to their conclusion that allowing greater quantities would become potentially damaging and would create effects beyond what the available information could justify without a substantial new study and probable reductions in yearly amounts to account for the possibility. The Districts stated in the Reconsideration Memorandum that the Appellants never asked to be able to carry over 100% of the authorized annual extraction amount for a segment, nor did the EIS assess that type of regime and potential impacts associated with it, which the Districts indicated could be substantially different than those considered. The Districts concluded that there was not sufficient information available to allow more than what was determined to be a *de minimis* amount of carry-over. The District stated that it addressed this issue in the response to Global Permitting Issue 7 in the Reconsideration Memorandum and on page 3-40 of the ROD.

The Districts' conclusions are supported in the AR. Therefore, this reason for appeal does not have merit.

REASON 8: The USACE's actions are contrary to federal constitutional law.

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: In the RFA, the Appellants stated that the Districts exceeded their congressional authority and violated the Tenth Amendment, failed to comply with Executive Order 12630 [regarding the Fifth Amendment], and claimed that placing a burden on private industry without adequate compensation infringes on due process rights. The Appellants also listed five additional sub-points under this reason for appeal that moves beyond constitutional law toward a question of whether the Districts applied current laws, regulations or officially promulgated policies.

The Constitutionality of the applied laws and published regulations is beyond the criteria which can be considered in this Regulatory administrative appeal and therefore lacks merit.

The Appellants noted five sub-points in this reason, as follows:

a. "Degradation to the riverbed and surrounding structures is severe, yet the Districts have failed or refused, despite congressional requests, to request funding to study and correct problems with the river or revise the BSNP to decrease the risk of degradation."

As discussed above, under Reason(s) for Appeal Nos. 1 and 3, the proposed action was not to study river bed degradation system-wide, but to evaluate permit proposals to dredge material from the river, The presence or absence of funding for a separate study on the BSNP is not relevant to the Districts' permit evaluation, nor did it prevent the Districts from considering the relevant factors of river degradation as a part of the evaluation for Applicants' permits.

b. "The Districts' analysis failed to consider the impact caused by the BSNP."

This point was addressed above in this document under Reason(s) for Appeal Nos. 1 and. 3.

c. "The Districts' analysis failed to address the issue of property rights in the river, in that the river and the materials in the river are owned by the States of Kansas and Missouri, not the federal government."

Corps jurisdiction and the requirement for a particular activity to obtain a Department of the Army permit stems from the nature of the proposed activity within waters of the United States, as defined at 33 CFR 328, regardless of property title, where those waters are situated, or incidental effects that regulating the activity may have on the use of the property. Authorization of work or structures by DA does not convey a property right, nor authorize any injury to property or invasion of other rights (33 CFR 320.4(g)), although administration of the Clean Water Act and Rivers and Harbors Act of 1899 may incidentally affect the use of the property.

d. "The Districts failed to meet the requirements of NEPA."

This point was addressed above in this document under Reason(s) for Appeal 1, 2, 3, 4, 5, and 6.

e. Section 10 of the Rivers and Harbors Act provides that the Districts must permit dredging activities and that USACE authority is limited to reviewing water quality by Section 404 of the Clean Water Act and navigability by Section 10 of the Rivers and Harbors Act. The Appellant asserts that the record concludes there are no Clean Water Act issues and that USACE has not articulated any legitimate threat to navigability caused by dredging.

33 CFR §325.8 (b) of the Corps' regulations gives District Engineers the authority to issue or deny permits pursuant to sections 9 and 10 of the Rivers and Harbors Act of 1899 and section 404 of the Clean Water Act. These section indicate that, in cases where permits are denied for reasons other than navigation or failure to obtain required local, state, or other federal approvals or certifications, the Statement of Findings must conclusively justify a denial decision. These sections further indicate that District Engineers are authorized to deny permits without issuing a public notice or taking other procedural steps where required local, state, or other federal permits for the proposed activity have been denied or where he determines that the activity will clearly interfere with navigation. Additionally, 33 CFR § 325.4 (a) authorizes District Engineers to add special conditions to Department of the Army permits when such conditions are necessary to satisfy legal requirements or to otherwise satisfy the public interest requirement. Permit conditions will be directly related to the impacts of the proposal, appropriate to the scope and degree of those impacts, and reasonably enforceable. Given the clear language of the regulations, there is no basis for the Appellants' assertions as to the limits of the Corps authority under either Section 10 or 404.

As documented in the administrative record, the Districts followed the applicable statutes and regulations during the permit evaluation process, per 33 CFR Parts 320-331. As a result, I find this reason for appeal is without merit.

REASON 9: The Districts used and relied upon unpublished data and sources cited in the ROD and FEIS that were unavailable to the dredgers, and not subject to external analysis or peer review.

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: In the RFA, the Appellants indicated that the Districts used and relied upon unpublished data and sources cited in the ROD and FEIS that were unavailable to the dredgers, and not subject to external analysis or peer review.

In the RFA and during the appeal conference, the Appellants asserted that the administrative record does not include the full scope of materials from USACE's Engineering Division which influenced the Regulatory Branch's ultimate permitting decisions. The Appellants asserted that documentation necessarily would include notes, memoranda, emails, preparatory documents, data sets, spreadsheets, or other written or electronic information addressing relevant matters such as the potential risk of infrastructure failure to dikes and levees due to bed degradation, and the Districts' Engineering Division's feedback on the District Regulatory Branch's proposed permitting alternatives. The Appellants argued that without the ability to obtain and review all materials provided by the Districts' Engineering Division to the Districts' Regulatory Branch, the administrative record is factually and legally incomplete. The Appellants asserted that documents memorializing conversations and meetings between members of the two offices were either missing or impossible to find. The Appellants' example was that 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, but the administrative record provides little documentation about Mr. Chapman's internal communications and analysis. The Appellants asserted that, while the Districts' decision frequently cites personal communications and unpublished data, it did not include these written documents in the AR. The Appellants asserted that, while the Districts claimed that these sources of information do not encompass the primary foundation supporting their permitting decisions, the Districts, to some degree, relied on these materials.

The Districts discussed their underlying analysis in the FEIS, on pages 10-109 and 10-110. The Districts, in their response to comments in the FEIS and in the Reconsideration Memorandum, which are both contained in the AR, stated that, while much of this data is published, in some cases, these data are unpublished, in development, or in the "grey literature" (i.e., in reports and data files that are not widely known or available, such as agency reports). The Districts asserted that this does not mean that these reports were draft or unfinished. The Districts, in their response to comments in the FEIS and in the Reconsideration Memorandum, stated that the use of these types of data in NEPA documents is widely practiced and that, without the use of unpublished data and reports, it would not have been possible to conduct a vigorous and comprehensive analysis. The AR, specifically in the FEIS and the appendices, clearly documents when unpublished data were used and shows the underlying analysis and summary of results. All data and information cited in the EIS are also compiled in the Administrative Record for the EIS and it is therefore available either in the designated information repositories or may be requested through the Freedom of Information Act (FOIA).

The citation of personal communications that the Appellants used as an example is found on page 10-116 of the FEIS and states that, "In response to the dynamics of the LOMR system, the USACE has periodically updated the dike configurations. The most recent changes to dike heights in the Kansas City segment occurred in 2004 and 2009 (Chapman pers. comm.). Dike

notching has also been implemented to erode sediment that has accumulated due to degradation and low flows since the early 1990s (Chapman pers. comm.)." In this case the Districts were citing the verbal indications of when on-going operation and maintenance of the federal project had occurred. The District relied on these communications for information and did not utilize the actual maintenance records in its evaluation.

While the Appellants have not provided other specific examples of documents they believe are not present in the record, it appears that when the Districts utilized documents in its analysis, that the information from those sources is summarized in the FEIS and that those documents have been included in the administrative record, which was provided to the Appellants after the RFA was submitted.

The Appellants questioned in their RFA the use of unpublished documents, which the District referred to as "grey literature". The term "grey literature" commonly refers to technical reports from government agencies and scientific research groups, working papers from research groups, and white papers, among other things.

There is no requirement in the NEPA regulations for sources used in developing an EIS to have been published. Further, the NEPA regulations do not prohibit the use of "grey literature". When relevant and credible, it is appropriate to use internal reports and other documents from the grey literature, which can be made publicly available, if requested. There is no requirement that all sources be published in their entirety in an EIS, either in the main document or as an attachment.

When using any source, agencies must consider the appropriateness of the source, using factors such as the intended purpose of the report, qualifications of the author(s), methodology employed (if applicable), and the overall quality. 40 CFR § 1502.24 requires agencies to "insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement."

The use of unpublished data was clearly referenced, along with descriptions of underlying analysis and summaries of results in the EIS and its appendices, within the AR. The use of information from the "grey literature" is reasonable, common and necessary. Documents and data used by the District are cited and summarized in the FEIS and its appendices and contained within the AR. Documents such as maintenance records or the analysis that led to maintenance on the BNSP, related to personal communications with Mr. Chapman may be requested through FOIA. Therefore, the Districts' documentation, along with a citation in the EIS of personal conversations, for at least the example given, is reasonable and sufficient.

As a result, this reason for appeal does not have merit.

REASON 10: 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.

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: In the RFA, the Appellants asserted that the Districts have not sufficiently documented that reduced removal of tonnage in the Missouri River will have any measurable effect on the Missouri River, as a whole.

The Districts determined that the proffered permits, with their dredging limits and included conditions, would result in no more than slight degradation over the short-term and long-term, are the LEDPA, comply with the Section 404(b)(1) Guidelines, and are not contrary to the public interest. The FEIS ROD, on pages 3-41 and 3-42, discusses the allocated annual extraction limit for each segment among the various applicants based on capability, investment, and equity by giving each applicant the percentage of the segment limit that is equal to the percentage of the total average amount extracted from that segment between 2004 and 2008 that was dredged by each applicant.

The Appellants assert that limits are being placed on commercial dredging under the theory that the cuts to dredging will have some favorable impact on the issue of bed degradation in the river. The Appellants further assert that the Districts 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 of the river. The Appellants argue that without any science to suggest that these cuts can be evaluated or whether they would have any discernible effect, the reductions in tonnage from the previous permits are arbitrary.

The Districts assert, in the Reconsideration Memorandum, dated 7 September 2011, in response to Global Permitting Issue 10, that while allocating the annual extraction limit for a segment among the applicants that work in that segment may result in seemingly inconsequential reductions in dredging for the individual permits, cumulatively among all the applicants the reductions are an essential part of the LEDPA. The Districts, however, define the federal action as the proposed reauthorization of dredging and the central question of the associated public interest review is whether or not and under what restrictions dredging should be authorized in the future. The Districts indicate that annual extraction limits for each segment were determined by evaluating previous dredging records, analysis of bed-material load estimates, and recent and historical degradation. The Districts indicate that their analysis showed a clear correlation between dredging quantities and degradation. The Districts state that dredging removes sediment from the bed material load and contributes to the disequilibrium of the river. The Districts assert that, even if the river is in disequilibrium and is degrading without any dredging, their analysis showed that allowing dredging would exacerbate the problem. The Districts assert that there is a strong and clear correlation in their analysis between the location and amount of dredging and the location and amount of bed degradation over time. The Districts conclude that the annual extraction amounts in the permit proffered to each individual applicant are based on the cumulative impacts analysis using the best available data and reasonable analysis methods and are not arbitrary or capricious. Cumulative impacts are discussed in reasons 3 and 6 above. The Districts also conclude that the proffered permit conditions are necessary and practicable and that increasing the authorized extraction limits in any of the segments at this time would be contrary to the public interest.

The Districts' conclusions that dredging beyond that which would be authorized by the proffered permits would unacceptably contribute to the degradation of the LOMR are supported by the ROD and the FEIS, which are part of the administrative record for the permit actions. However, as indicated above, the Districts remain committed to working with the Appellants in evaluating monitoring data that is produced during the authorized mining operations and would consider modifying dredging limits should it be supported by the monitoring results.

INDIVIDUAL PERMITTING ISSUES

The issues listed below were provided in the RFA, as the issues associated with each of the denied or declined permits. These issues are largely a restatement of the global issues listed above, as they apply to each of the denied or declined permits. As detailed above, the global issues do not have merit. As such, the issues, as applied to each of the permit decisions, do not have merit. Each of the following reasons was addressed above and a cross-reference to where the discussion can be reviewed is provided for each.

I. J.T.R., INC., MVS-2011-00178

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

A. 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. (See Reason for Appeal 1)

B. The segment amount is arbitrary and capricious, and its distribution and allocation unreasonable. Additionally, 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. NWK and MVS developed a joint EIS and developed permits jointly, which should minimize the potential for any differences in regulatory positions to arise. While the Appellants would need to remain aware, in some cases, of dredging activities of competitors, ensuring compliance with permit conditions and any necessary enforcement of those conditions remains the responsibility of each of the Districts. (see Reason for Appeal 2)

C. The amount of tonnage at the mouth of the Missouri River and reaches allocated to this permit are underestimated. 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 FEIS. (See Reason for Appeal 1)

D. The permit decision fails to take into account the impact of the Bank Stabilization and Navigation Project. (See Reason for Appeal 3)

E. The permit's limitation of 300,000 tons per 5-mile reach is arbitrary.
(See Reasons for Appeal 1 and 2)

II. LIMITED LEASING COMPANY, PERMIT NO. MVS-2011-00177

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

A. The tonnage available in the permit can and should be increased. 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. (See Reason for Appeal 1)

B. The segment amount is arbitrary and capricious, and its distribution and allocation unreasonable. 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. (See Reason for Appeal 2)

C. The amount of tonnage at the mouth of the Missouri River and reaches allocated to this permit are underestimated. 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 FEIS. (See Reason for Appeal 1)

D. The permit decision fails to take into account the impact of the Bank Stabilization and Navigation Project. (See Reason for Appeal 3)

E. The permit's limitation of 300,000 tons per 5-mile reach is arbitrary. (See Reason for Appeal 1 and 2)

III. CAPITAL SAND COMPANY, INC., PERMIT NO. MVS-2008-00193

Capital Sand operates and is permitted in the 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 was arbitrary and capricious in that it was not based on accurate or complete data.
(See Reason for Appeal 1)

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. (See Reason for Appeal 1)

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. The Waverly segment is aggrading and has surplus material. There is no basis to deny the applicant's request. (See Reason for Appeal 1)

D. 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. (See Reasons for Appeal 4 and 5)

E. 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. (See Reason for Appeal 1)

F. 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. (See Reason for Appeal 3)

G. Specific denial of Capital Sand's Washington, Missouri permit (MVC-2008-0093) by the St. Louis District. 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. (See Reasons for Appeal 1,3, and 6)

IV. HERMANN SAND & GRAVEL, LLC, PERMIT NO. NWK-2011-00362

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. (See Reason for Appeal 1)

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. (See Reason for Appeal 10)

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 (See Reasons for Appeal 2 and 10).

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 (See Reason for Appeal 1).

CONCLUSION: I conclude that the reasons for appeal of these declined proffered and denied Departments of the Army permits do not have merit. The Districts' permit decisions were not arbitrary, capricious or an abuse of discretion, and were not plainly contrary to applicable law or policy. The final permit decision authority for the JTR, MVS-2011-00178 (Declined Permit), Limited Leasing, MVS-2011-00177 (Declined Permit), and Capital Sand, MVS-2008-00193 (Denied Permit) remains with the ST Louis District Engineer. Likewise, the final permit authority for the Hermann Sand & Gravel, NWK-2011-00362(Declined Permit), and Capital Sand, NWK-2011-00361(Declined Permit) remains with the Kansas City District Engineer. This concludes the Administrative Appeal process.

John W. Peabody
Major General, US Army
Mississippi Valley Division Commander

Anthony C. Funkhouser P.E.
Brigadier General, US Army
Northwestern Division Commander

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 (See Reason for Appeal 1).

CONCLUSION: I conclude that the reasons for appeal of these declined proffered and denied Departments of the Army permits do not have merit. The Districts' permit decisions were not arbitrary, capricious or an abuse of discretion, and were not plainly contrary to applicable law or policy. The final permit decision authority for the JTR, MVS-2011-00178 (Declined Permit), Limited Leasing, MVS-2011-00177 (Declined Permit), and Capital Sand, MVS-2008-00193 (Denied Permit) remains with the ST Louis District Engineer. Likewise, the final permit authority for the Hermann Sand & Gravel, NWK-2011-00362(Declined Permit), and Capital Sand, NWK-2011-00361(Declined Permit) remains with the Kansas City District Engineer. This concludes the Administrative Appeal process.

John W. Peabody
Major General, US Army
Mississippi Valley Division Commander

Anthony C. Funkhouser P.E.
Brigadier General, US Army
Northwestern Division Commander