

Horton, Kale E NWK

From: Woody Moses [emoses@ink.org]
Sent: Friday, December 09, 2011 3:03 PM
To: Horton, Kale E NWK
Subject: Comments Public Notice - Kansas River Commercial Dredging

Kale Horton, United States Army Corps of Engineers, Kansas City District,

Dear Mr. Horton,

The commercial dredging of sand on the Kansas River has been an activity since territorial day in Kansas. During this period of time it has provided access to natural resources for many in the Kansas City metro area and still remains a vital resource. While there have been concerns raised by a few regarding the viability of this activity we believe that dredging operations can be continued in an environmentally safe and responsible manner; thus benefiting the many as opposed to the few. In this respect, please consider the following:

1. The market for commercial sand is now approaching almost 8.4 million tons per year in the Kansas City Metro area; while conversely the natural resources available have diminished due to the new limits on the Missouri River and the continued inability to open up new floodplain resources (2 attempts to do so were rejected in Douglas County, KS last year). In our opinion to prohibit sand production would cause severe displacement and unnecessary economic hardship in the Kansas City market.
2. The Regulatory Plan For Commercial Dredging Activities On The Kansas River, has served well, along with other regulatory plans, to protect the river from adverse consequences. As the plan has been effect for over twenty years the results serve as confirmation.

For the reasons outlined above the Kansas River Sand Producers urge the approval of the permits covered by this public notice. As the Regulatory Plan has proven, commercial dredging activities on the Kansas River can be continued in a fair and balanced manner, providing benefit to the many while not unduly effecting the few.

Respectfully submitted on behalf of the Kansas River Sand Producers

Edward R. Moses, Managing Director

Kansas River Sand Producers

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Horton, Kale E NWK

From: David Hartnett [dchart@k-state.edu]
Sent: Thursday, December 08, 2011 7:53 PM
To: Horton, Kale E NWK
Subject: Kansas River Dredging

Dear USACE,

I am writing to voice my strong opposition to dredging in the Kansas River and urge the denial of the applications for dredging permits under consideration. As an environmental biologist I am well aware of the ecology and geomorphology of the river system and it is clear that we now know that dredging the river channel has numerous serious negative environmental and economic impacts that far outweigh the economic benefits of dredging.

I am also an avid canoer and recreational user of the Kansas River. I have had much experience vacationing and paddling well managed rivers in several other states in our region, and communities along these rivers enjoy great economic benefits from recreational use of their river. The Kansas River has great potential for expanded recreational use and increasing tourism in Kansas, presenting great opportunities for future economic growth. However, this economic potential will not be realized if dredging continues to be permitted in the river.

The addition of new river access points and parks at various points along the Kansas River has been a great step in the right direction. Permitting dredging of the river channel would be a terrible step in the wrong direction.

Sincerely,
David Hartnett

--
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Horton, Kale E NWK

From: Sarah Hill-Nelson [shn@bowersockpower.com]
Sent: Friday, December 09, 2011 4:25 PM
To: Horton, Kale E NWK
Subject: Dredging Comment

Dear Mr Horton:

Re: the application for five additional dredging permits with thirteen additional dredging sites on the Kansas River

As the owner of a business that makes it living through the Kansas River, I recognize the many competing issues that must be analyzed in reviewing dredging permits. The Bowersock Dam creates undeniable impact on the Kansas River, yet we believe the value of providing a pool for water supply and providing renewable energy outweighs the impacts. We do the utmost to try to mitigate the impacts of our project while maintaining the economic viability of the business. I suggest that the USACE take into consideration the recent Kansas State University study regarding dredging, and develop a compromise solution that recognizes the important role of sand to the northeast Kansas economy while taking into account the importance of retaining a viable river ecosystem.

Sincerely,

Sarah Hill-Nelson

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Holliday

SAND AND GRAVEL COMPANY

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12/8/11

Mr. Kale Horton
US Army Corps of Engineers
Kansas City District
Regulatory Branch
601 East 12th Street
Kansas City, MO 64106-2896

Re: Kansas River Commercial Dredging Permits

Dear Mr. Horton:

Holliday Sand & Gravel Company (Holliday), a permit applicant, submits the following comments to inform the public about Kansas River dredging – a highly restricted and regulated commercial activity that seeks to provide the public the sand it demands for infrastructure and other building products in the least environmentally damaging and most sustainable methods.

Holliday Sand has been dredging sand in Kansas City since the 1930's. Decades ago, almost all the sand for Kansas City came from Kansas River dredging. Over three million tons were being dredged annually in the Kansas City reach alone (from Bonner Springs to the mouth) in the 1970's and 1980's. This exceeded the amount of available sediments moving down the river and resulted in degradation and a constant migration of dredging operations upstream as areas of the river were depleted of sand. This prompted the need to determine how much sand could and should be dredged without harm. In the late 1980's a Kansas Commercial Dredging Environmental Impact Statement (EIS) was conducted for that purpose. It concluded that over three times as much sand was being removed as was naturally being replenished, that some areas were already naturally degrading (DeSoto, for one), and that some areas already had unstable banks due to sharp bends. The recommended EIS alternatives were consolidated into a Regulatory Plan with a Monitoring Program. **Dredging in the KC reach was reduced by over two-thirds with limits by reaches and by permit. Where single dredges were previously removing one million tons, they were now limited to 300,000 tons. In addition, dredging would be stopped in any reach that had more than two feet of degradation for any reason.**

This program of severe reductions has resulted in the closing of seven dredging facilities. Except for dredge areas that have natural controls nearby, most dredge areas resulted in the two feet of degradation

and closure. Usually this was due more to degradation remote from the dredged area in an area that had a history of naturally aggrading.

Because of recent higher river water flows these areas have aggraded back to within two feet of the original bed elevation and can be technically reopened. This is not detrimental to the river bed or nearby riverbanks. The river is protected by the two foot restriction. There is no call for alarm from the public. These dredgers have a vested property interest by the river and hope to salvage some of their investment with some very limited dredging. **This is a resumption of dredging not an expansion.**

Here are Holliday Sand's requested dredge permit terms:

1. Holliday Sand opposes any deviation from the existing regulatory plan, except clarifications if needed for the resumption of a discontinued permit, which we have no need to exercise. The Plan is working and has proven to minimize dredging impacts to an insignificant level in stable reaches.

2. Holliday has requested no increase in tonnage, only the existing 600,000 tons.

3. Holliday has requested an extension of our very small dredge permit downstream an additional 2300 feet (.45 miles) because it was only 800 feet long (.15 miles). The requested permit is still only 0.6 miles where 1.5 miles is allowed by the Regulatory Plan.

As you can see Holliday has no plan to expand dredging beyond operating our two dredges above and below the K-7 Bridge.

FOK Comments

The following is our comment with regard to quotations recently distributed by the Friends of the Kaw (FOK) including their interview of Kansas State University researchers Melinda Daniels and Craig Paukert (both PhDs). We apologize in advance if the researchers have been misquoted. The FOK statements require a response from our long term point of view. Holliday just finished a Missouri River EIS and combined with our experience over the years we would like to think we have some knowledge and much experience to share about dredging and changes in fluvial morphology (river structure).

We believe that small groups such as the Friends of the Kaw (FOK) have bias against industrial activities in the river no matter how limited. They will not rest until there is not one dredge producing sand from the Kansas River. To them, the Kansas River is their playground; there should not be anything there to detract from their "experience". We believe their comments to be selective, one-sided and over simplistic and we fear that without telling the whole story, our story, the public could end up misinformed and incorrectly biased against our industry.

The FOK statements are italicized and indented as follows and our respective comment follows thereafter:

"The Kansas River Water Trail is among the best potential conservation investments in the nation. Unfortunately, dredging will only harm this investment, not maximize it."

FOK 12/8/11

In regard to this comment, Holliday has never opposed recreation on the river. We will shut down our operation any time we have been notified of an organized event and will be sure our dredge is secured to the bank. We have participated and funded river cleanups on both the Kansas and Missouri Rivers and we have donated our time and materials to public boat ramp construction. We recently donated 23 acres to the City of Shawnee for a riverfront park. Dredging itself may not be beneficial to a water trail but we have contributed in every other way we could to promote

river recreation, knowing those we are helping may turn on us with intolerance toward an industry which has benefited construction and employment in the Kansas City metro.

“Dredging destroys the river channel, causing erosion that threatens valuable farmland, bridges, roads, flood control measures, and wildlife habitat.” FOK

We believe dredging does not “destroy the river channel”, in fact, just the opposite. Dredging encourages a channel to form, without which low water passage would not be possible during normal low flows.

Degradation destroys the channel but the Regulatory Plan limits that to two feet thereby preventing the destruction of the channel. There are causes of degradation that have not been regulated as dredging is. (Other causes being clear water reservoir and tributary releases, reservoir medium flows and water intake weirs that act as a dike and concentrate flows to one side.)

Severe river bank erosion has occurred in many areas without any dredging occurring nearby due to extreme flooding (1951 and 1993) and the construction of the flood control reservoirs that create medium flows. The medium flows created by reservoir releases were never a natural occurrence in the historic river. The naturally occurring low flows and back-full flows do not erode the sand banks. It is the medium flows from reservoir releases that melt the unprotected sand banks. Dredging actually mitigates natural bank erosion by creating a defined channel that serves to discourage the natural channel migration that results in severe bank erosion during higher flows.

“It [dredging] also stirs up sediments and pollutants that are expensive to remove from our drinking water.” FOK

We believe dredging in a flowing river has not impacted drinking water quality. Holliday has operated for years immediately above water intakes. By using electric dredges with readily biodegradable hydraulic oil the spill risk has also been addressed.

All river water intakes and wells adjacent to the river are classified as surface water intakes and already incur costlier processes by nature of their location, not whether there is any dredging nearby.

“If you take 3.2 million tons from the river bottom, then the river will take 3.2 million tons from the riverbanks, trying to balance the sediment load in the system,” Daniels said. “That’s the simple physics of how water works in river channels to transport sediment.” FOK

The USACE did not adopt dredging limits that would result in an equivalent amount of degradation. Simons and Li determined the amount of sediment already being naturally transported. An appropriate portion of that amount was allowed so at worst case it would only result in minor impacts. However, just to be sure, an additional two foot degradation limit was set.

For example dredging has gone on below the old Bowersock Dam (circa 1872) in Lawrence for over 50 years, just below where the dam naturally scours. It is likely that over 5 million tons have been removed there over the years directly below what was described as relatively unstable [dam]. It is unlikely that the USACE would permit the dredging out of Bowersock Dam. No, they knew how many tons would safely overflow the dam and conservatively reduced it. If Daniels’ statement was correct there would not be a dam there now, just a 40 foot deep hole.

Surveying a dredge hole to confirm a headcut and applying “simple physics” does not negate the Kansas River EIS that has already been done to determine if dredging is in the public interest. It has already been determined on the Kansas and the Missouri Rivers that river dredging is in the public interest at an appropriate level.

As was recently done on the Missouri River, the Kansas River was studied to determine the naturally moving sand bed load and therefore the acceptable and sustainable level of dredging. This Simons and Li report was also used as a reference in the recent preparation of the Missouri River Commercial Dredging EIS and is not outdated.

The Kansas River is carved in sand. The banks are natural (not reveted) and the river is free to migrate laterally, caving bank on the outside and depositing on the inside of the bends. For this reason, there is already a certain amount of sand that is transported in high water and deposited in areas of lower velocity (such as a dredge hole). Except for the original excavation of that dredge hole, dredging is only removing what sand is being transported anyway. As long as the amount of bed load is safely not being exceeded, there is no net loss from dredging. With the existing restrictions, if the river degrades an average of two feet over five miles due to dredging, headcutting or whatever, the dredger must stop dredging. This was not the case prior to 1990. The river was over-dredged and it did degrade partly from dredging and partly due to the upstream dams limiting sediment and also increasing higher bank melting flows. Dredging near Kansas City has already been reduced by two-thirds and degradation has been halted – the river is stable.

“Dredging on the Missouri River has been scaled back recently because of similar problems propagating into the lower Kansas River and other tributaries to the Missouri.”

“The Army Corps has studied similar conditions with sand dredging on the Missouri River,” said Daniels. “They are aware of the problems, and if dredging is a problem for the Missouri River, then it’s going to be a problem for the Kansas River. Simply shifting the problem from the Missouri to the Kansas is not a good strategy.” FOK

The Kansas River is nothing like the Missouri River. The Missouri River was engineered and built with structures (dikes) to degrade and scour a nine-foot deep navigation channel in accordance with precise minimum levels of water releases mandated during the navigation season. Every curve of the 500 mile navigable Missouri River was designed, laid out and built by the USACE over a 45 year period. Overly aggressive dikes were originally constructed on the Missouri River near the Kaw mouth to prevent sediment buildup there in the navigation channel. Because of the upstream dams and weirs on the Kansas River, there is today much less sediment entering the Missouri River. Correspondingly, the dikes have recently been modified to reduce scour energy there. This will reverse degradation in the Missouri River and in time will reverse degradation in the Kaw.

“Any riparian owner should be worried, particularly farmers with unforested river banks next to their fields.” M. Daniels

Long time riparian property owners along the Kansas River know that bank erosion has increased since the reservoirs were built upstream whether or not there is dredging anywhere nearby. For example, the DeSoto reach has been degrading with or without river dredging. The reach is not impacted by downstream dredging in Bonner Springs because a natural armored area exists immediately upstream from the area dredged. Property owners nearby our operations were upset when we could not dredge near

their property. Long time property owners know that dredging keeps the channel open and helps prevent sandbar formation in the channel that deflects low flows into the bank resulting in bank erosion and undercutting. We are not aware of any damage to farmland, bridges, roads or flood control measures as a direct result of commercial dredging. If there was, it would have been designated as a non-dredging reach as several areas were in the Regulatory Plan.

State Ownership

The Kansas River below the ordinary low water elevation and the sand deposits in it are the property of the citizens of the state of Kansas. Additional dredging within the limits of the Regulatory Plan would annually provide hundreds of thousands of dollars in added revenue to the state and would not prevent additional recreational use of the river. In fact, dredging has created channel water depth that is needed for water craft recreation.

Sand is a necessary component of many products that are needed by society. Like water, oil, coal, wind and sunshine, sand cannot be created only mined. Mining in the flood plain as has been suggested as an alternative to river dredging is not as sustainable. The issue is selecting the least environmentally damaging alternative if the product is in fact needed. It is not simply do one or the other. This has been extensively studied and it has been determined that the current level of river dredging is sustainable and in combination with flood plain pit mines can meet the demand for building aggregate.

With 170 miles of river for recreation (fun), does it not seem reasonable to allow dredging over some 10 miles of it thereby preserving precious farm land that is going to be needed to feed the people of the earth?

Dredging at the correct level and the correct location is not going to result in additional negative impacts and is a sustainable source of aggregate at the current low levels of dredging. FOK is trying to eliminate all dredging for their agenda and we believe that is just not in the best interests of the public. Sand dredging at the current low levels is for the greater good as it will reduce the amount of land loss from flood plain (pit) dredging over the long term.

We believe twenty years of river bed surveys demonstrate the existing Kansas River Regulatory and Monitoring Program has already addressed degradation and dredging has been adequately studied and curtailed in keeping with the public interests of Kansas and the metro area.

Sincerely,
Holliday Sand & Gravel Company

Mike Odell
Vice President - Production

Public comment on proposed increase to in-channel dredging on the Kansas River

Contributed by: Dr. Melinda D. Daniels, Associate Professor, Fluvial Geomorphologist, Kansas State University. 785-532-0769, mddaniel@ksu.edu

I am writing to strongly oppose any increase in dredging activity on the Kansas River, regardless of location. I am a specialist in river geomorphological dynamics, and it is my professional opinion, supported by an abundance of scientific peer-reviewed literature, that any in-channel mining of sediment produces both damaging channel incision through bed degradation as well as channel widening through accelerated bank erosion. In-channel mining simply should not be permissible given the preponderance of data regarding its negative effects.

In-stream sand and gravel mining has been shown to directly alter riverine habitat (e.g. Kondolf, 1997; Brown et al., 1998; Meador and Layher, 1998). Since the rate of aggregate removal often exceeds the rate at which it is replenished, large temporary pools form at the dredge site during low flow conditions and remain until an effective flood replaces the sediment. These unnatural pools disrupt the equilibrium of the geomorphic processes of the river by producing a sediment sink into which transported bedload falls as sediment transport initiates. At the same time, the upstream headwall of the dredge hole is an over-steepened reach that initiates bed erosion and the headwall position migrates upstream as a headcut. The sediment starvation caused by the sink-effect of the large dredge hole causes downstream sediment entrainment and erosion of the bed in the downstream direction as well. The net effect is an overall bed lowering, or channel incision, which then destabilizes over-steeped banks causing channel widening as well (e.g. Kondolf, 1997; Doyle and Harbor, 2002). Numerous studies have documented the infrastructure damage produced by mining-induced incision (e.g. Kondolf, 1993; Kondolf and Swanson, 1993; Humbolt County, 1993; Sandecki, 1997). Yet, given the destructive nature of dredging and its potential effects on channel stability, surprisingly few studies have been published in peer-reviewed journals focusing on the dynamics of incision propagation and bank erosion (e.g. Kondolf et al., 2002; Lagasse, 1980; Rempel and Church, 2008), likely because of the challenges associated with monitoring dredge hole behavior in real time.

Although most studied systems are gravel-bedded, the Russian River, in northern California, provides an example of a mixed load (sand and gravel) system with a long history of extensive in-channel mining. This system has responded via dramatic channel incision and bed degradation (Trinity Associates, 2000). The results of this study suggest that the effects of in-channel mining are ubiquitous, irrespective of the characteristic bed material size in a river.

Channel incision and bank erosion are identified problems on the Kansas River system, as clearly outlined in the Kansas Water Plan. Numerous bank stabilization structures have been installed in recent years, and tributaries to the main channel are deeply incised until a natural or artificial grade control is encountered. The process of bed degradation threatens built infrastructure such as bridges, water intakes, and floodplain forests, farmland and developments. Bed degradation processes, and the channel stabilization works built in response to them, fundamentally alter the habitat within the river system and can contribute to the decline in native

aquatic species (e.g. Vaughn, 2010). The USACE recently released a river degradation report for the Missouri (USACE, 2009), which identified dredging as a probable cause of river incision. However, the report also states (on page 21) that “the data is not conclusive as to the detailed cause-and-effect relationship between dredging and riverbed degradation”, which begs for an intensive monitoring study of dredge hole behavior to provide a conclusive evaluation of cause-effect relationships between dredging and incision. **This in effect means that the existing EIS used to evaluate dredging permits is not sufficient to support further permitting decisions. A new EIS is required before proceeding.**

An ongoing study, funded by the Kansas Department of Wildlife and Parks, has demonstrated that depth and velocity habitat parameters in dredged reaches are significantly different than non-dredged reaches. This study has also **documented, in real time, the upstream migration of the upstream headwall of a dredge hole** during a relatively minor stage increase. The physical laws governing sediment transport in rivers dictate that this headcut migration process will accelerate during larger stage increases more representative of spring flows on the Kansas. Work is ongoing to monitor and model dredge hole behavior on the Kansas River, but these direct field measurements of dredge hole headcut migration suggests that in-channel dredging on the Kansas River does indeed cause bed degradation and incision propagation, as was suspected when the USACE detected bed incision and revoked dredging permits several decades ago.

If permitted, new river dredge holes could initiate severe bed degradation likely to propagate throughout the upper Kansas River network to grade controls such as reservoirs, culverts, bedrock outcrops, and low water crossings. Some of these tributaries are habitat for the federally listed Topeka Shiner fish. To my knowledge, past EIS studies did not consider the propagation of the headcuts into the Kansas tributaries – a glaring and unacceptable scientific error.

It is important to note that the proposed increase in dredging is in direct contradiction to the Kansas Water Plan. With reference to the Kansas Water Plan, **the proposed increase in dredging will directly undermine the State’s management objectives 9 and 15** (see below) as well as the entire focus of the Kansas-Lower Republican Basin (KLR) section of the document, which focuses on bed degradation in the main stem of the Kansas River (!).

Objective # 9. Achieve sustainable yield management of Kansas surface and ground water sources, outside of the Ogallala aquifer and areas specifically exempt by regulation. Sustainable yield management would be a goal that sets water management criteria to ensure long term trends in water use will move as close as possible to stable ground water levels. The bed elevation of the Kansas River directly controls the water table elevation in the floodplain – an important source of water supply to farmers and municipalities all along the main-stem Kansas. The proposed dredging expansion will cause channel incision and threaten these water supplies.

Objective # 15. Maintain, enhance or restore priority wetlands and riparian areas. Riparian ecosystems, particularly forests and wetlands, are dependent upon water and disturbance supplied by overbank flooding events and maintenance of water table elevations. If incision progresses far enough, the frequency of overbank flooding decreases, as does the relative floodplain water table, leaving riparian wetland “perched” and disconnected from

rejuvenating floods. Furthermore, the prospect of channel widening associated with bed degradation threatens to remove the riparian buffer ecosystems present along the river, bringing the active channel into closer contact with human land uses such as farmland, roadways and other infrastructure in the built environment, thereby eliminating the space available for riparian ecosystems in the floodplain.

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Horton, Kale E NWK

From: Kindscher, Kelly [kindsche@ku.edu]
Sent: Thursday, November 17, 2011 8:36 AM
To: Horton, Kale E NWK
Subject: data on current dredging

Dear Kale,

I read in today's Lawrence Journal World newspaper about the permit for sand dredging.

See: <http://www2.ljworld.com/news/2011/nov/15/businesses-hope-increase-dredging-along-kansas-riv/>

I would like to know more about the environmental impacts of the current dredging. Could you send me the data or summary of the data on the following since the last time the permit was issued:

- 1) Has there been any erosion or stream down-cutting due to dredging or other causes?
- 2) Does water quality data show any increase in pollutants or turbidity due to dredging or other river uses?
- 3) Specifically, do any of the pollutants of great concern—mercury, atrazine, nitrogen, phosphorous, or others show any increases immediately downstream from dredging?
- 4) What impact has the dredging had on fish and aquatic species downstream of dredging during the last permit period.
- 5) Specifically, are any species of concern affected by the dredging.
- 6) Are there any other environmental impacts that the Corps has associated with the proposed sand dredging?

Thanks,

Kelly Kindscher

Kelly Kindscher
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Horton, Kale E NWK

From: Sherry Davis [sbd@ksu.edu]
Sent: Thursday, November 17, 2011 3:22 PM
To: Horton, Kale E NWK; riverkeeper@kansasriver.org
Subject: Please don't issue new river dredging permits

Dear Mr/Ms. Horton,

I am writing to ask the Corps of Engineers to NOT renew or issue any new permits on the Kaw River for dredging. I work with communities to help them identify water quality projects that will enhance the futures of their community--its economy, culture, education, and ecosystems and most of all--their local water resources. While dredging riverbeds is not a new business--it is one that CAN be supported by an alternative route: land mining sand. And, land mining can be reclaimed for beneficial uses and can even be used to create new habit for local and migrating birds and other animals in the area.

I respectfully seek your support of helping restore the river to a state of health that will promote local recreation, animal and fish habitat preservation and restoration--and to protect the river channel. I ask that you and your organization NOT renew any dredging permits or authorize any new permits on the KAW.

Thank your for this opportunity to express my opinion and my appreciation for the river.

Sherry Davis

--

Sherry Davis, Project Coordinator,
Healthy Ecosystems-Healthy Communities Program Kansas PRIDE
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Horton, Kale E NWK

From: jsteichen1@cox.net
Sent: Monday, December 05, 2011 3:04 PM
To: Horton, Kale E NWK
Subject: Kansas River comments

I am writing in opposition to the proposal to increase sand dredging on the Kansas River.

I am a professor of Biological and Agricultural Engineering at Kansas State University. Some of my research experience has dealt with the impact of military training activities on the sustainability of military training on training lands and associated streams at Fort Riley. We were specifically interested in the impact of stream crossings (both designed and improvised) on the stability of stream channels and banks.

I've been interested in the research activities of my colleague in Geography, Dr. Melinda Daniels. Dr. Daniels has expertise on stream morphology and the impact of disturbances on streams. Her research on the impact of in-channel dredging operations on the Kansas River is relevant to the question of permitting additional dredging operations. She has shown that dredge holes will migrate both upstream and downstream. This "migrating head cut" can also affect tributaries by lowering the channel bed and destabilizing stream banks, especially banks without timber. Destabilized banks are susceptible to bank failure and very high sediment loss. A head cut can also work its way up tributaries.

A better alternative is to mine sand from pit mines near the river. I recognize that we need large quantities of sand to support construction activities in the area, but there are better alternatives than in-channel dredging.

James Steichen, P.E.
Professor Biological and Agricultural Engineering Kansas State University Manhattan, Kansas

Horton, Kale E NWK

From: Lee Boyd [lee.boyd@washburn.edu]
Sent: Monday, December 05, 2011 3:32 PM
To: Horton, Kale E NWK
Cc: lee.boyd@washburn.edu
Subject: Kansas River Dredging comment

Kale Horton, Regulatory Manager
U.S. Army Corps of Engineers
Kansas City Regulatory Office
635 Federal Building
601 East 12th St.
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December 5, 2011

Dear Kale Horton,

I am commenting upon the Kansas River dredging. I urge the U.S. Army Corps of Engineers to deny all thirteen sites included in the five permits and end sand and gravel dredging on the Kansas River. The Army Corps of Engineers decision on these dredging permits must incorporate information from Kansas State University scientific research on the environmental impacts of dredging.

Please stop the destructive practice of in-river sand and gravel dredging on the Kansas River! Dredging causes major long-term damage to the river channel.

Dredging threatens water quality. According to the Kansas Department of Health and Environment (KDHE), more than 600,000 Kansans depend on the Kansas River for their water supply. One-third of residents in Johnson County and all the residents of Topeka get their water from the Kaw. The need for sand pales in comparison to the need for clean water for so many people.

Dredging increases pollution by churning up old industrial pollutants that have settled to the river bottom.

It will cause erosion of river banks, endangering property including some of the nation's most valuable farmland.

It endangers aquatic wildlife, including many threatened and endangered species of mussels and fish, such as the pallid sturgeon.

Dredging creates hazards for recreational use of the Kaw.

The detrimental effects of river dredging far outweigh the benefits, and mitigating these damaging effects will be costly to the state, and municipalities along the Kansas River.

There are reasonable, economic, and less environmentally damaging alternatives to in-river dredging such as sand pit mines. There is no need to dredge the river in order to get high quality sand.

Dredging has already caused significant damage to the Kaw's riverbed, to habitat in and along the river, and to water quality, causing the Corps of Engineers to close some stretches of the river to further dredging. Please close the entire river to dredging.

Thank you for hearing my concerns,

Lee Boyd, Professor of Biology

738 E 500th Rd.
Lawrence, KS 66047



PUBLIC COMMENT

Regarding Permits to Dredge the Kansas River

DECEMBER 7, 2011

FROM:

Kansas Riverkeeper@
Laura Calwell

2011 Board of Directors

Laura Calwell, Riverkeeper
Friends of the Kaw
5610 W. 61st Terrace
Mission, KS 66202

TO:

Executive Board

Chad Lamer, Pres.

R.J. Stephenson, Vice Pres.

Moni Spinger, Treasurer

Mike Calwell, Secretary

Kale Horton, Regulatory Manager
U.S. Army Corps of Engineers
Kansas City Regulatory Office
635 Federal Building
601 East 12th St.
Kansas City MO, 64106-2896
816-389-3656
kale.e.horton@usace.army.mil

Members at Large

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Christina Glauner

Lisa Grossman

John Holliday

Heidi Mehl

Bill Modrcin

Jim Neese

Jim Steichen

Jim Walton

REGARDING PERMITS FOR:

Kaw Valley Companies, Inc. (2011-1460)
Holliday Sand & Gravel Company (2011-1462)
Master's Dredging (2011-1465)
Penny's Aggregates, Inc. (2011-1466)
Meier's Ready Mix /Victory Sand Mining & Dredging, LLC (2011-1463)

Honorary Directors

Lance Burr

Chip Wood

Dear Mr. Horton and U.S. Army Corps of Engineers (USACE):

Friends of the Kaw

P.O. Box 1612,

Lawrence, KS 66044

Kansas City:

913-963-3460;

Lawrence:

785-312-7200

Please accept this as the official public comment from Friends of the Kaw (FOK) regarding the permits referenced in detail at the end of this letter. FOK is a nonprofit environmental and conservation group whose mission is to protect and preserve the Kansas River (known locally as the Kaw) for future generations. We have been involved in dredging issues since our founding in 1991.

Report River

Pollution:

1-866-RIV-KEEP

KANSAS RIVERKEEPER®

Email:

HRiverkeeper@KansasRiver.org

Website:

<http://KansasRiver.org>



The dredging permits under review seek to increase total dredging on the Kaw from 2.2 million tons removed to 3.2 million (a jump of almost 50%), as well as to increase the total dredging sites to thirteen. **FOK strongly objects to this unprecedented expansion of dredging on the Kansas River.** In summary:

- Since the available scientific knowledge is changing significantly due to the new K-State dredging study (Daniels and Paukert, forthcoming January 2012), we request that the USACE accordingly develop and implement a new Environmental Impact Statement (EIS) and Regulatory Plan for the Kansas River. The 1991 Regulatory Plan is no longer effective for administering the river and the permitting process.
- We request a public hearing on the dredging issue to take place.
- The USACE must require NPDES and 404 permits for these dredging activities.
- FOK strongly urges the USACE to deny all permits, and end sand and gravel dredging on the Kansas River however we would be amenable to allowing most current permits a five-year window to allow for the transition to appropriately sited pit mines in the Kansas River Valley.

As we will explain in detail below, the proposed dredging activities are not in the public interest and they fall far short of the necessary criteria to receive a permit from the USACE. The private and public needs for the proposed river dredging are minimal. There are several appropriate locations along the Kansas River where sand and gravel companies can practically pursue the alternative of obtaining high quality and affordable sand and gravel from pit mines. Sand from pit mines can easily fulfill the public's need for raw materials in building and construction. FOK has already worked with several companies in appropriately siting these mines.

Above all, the detrimental effects of dredging on public and private interests significantly outweigh the benefits. The long-term environmental effects of private dredging operations will permanently damage several public uses of the river, such as providing affordable (cost-effective to treat and distribute) drinking water, as well as water for irrigation. Dredging also causes erosion to valuable farmland and creates risk for public infrastructure such as bridge footings. The impact of dredging also alters the physical river channel to the extent that it has an impact on local fish communities - potentially even on endangered species that live adjacent to the Kaw, in tributaries further up the watershed.

Again, there are definitely less environmentally damaging, practicable alternatives available rather than in-river sand and gravel dredging. FOK urges the USACE to deny the permits.

For the past several months, we have asked the USACE in multiple emails and phone calls to delay this comment period a few weeks until after the holidays. We had two goals: (1) To attract the widest possible public response, and (2) For the public to have available the results of the K-State dredging study referenced below (its release date has long been known, and we also informed the USACE that it was pending). We have repeatedly received the assurances of the USACE that they will integrate the results of this study into their findings. However, the broader public – including federal and state agencies - should have had the same opportunity to include the new scientific information in their responses.

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SCIENTIFIC EVIDENCE ON THE IMPACTS OF DREDGING

According to Region 7 of the Environmental Protection Agency (EPA), the Kansas River faces multiple environmental threats (http://www.epa.gov/region7/citizens/care/ks_river.htm):

The Kansas (Kaw) River watershed is one of the most vital, heavily populated, and environmentally threatened ecosystems in the State of Kansas. Run-off of herbicides from farmland, fecal coliform bacteria from livestock operations and municipal wastewater treatment plants, and removal of sand by dredging operations present the greatest threats to the river's ecology and water quality.

Preliminary results from Kansas State University researchers Melinda Daniels and Craig Paukert (forthcoming January 2012) further delineates the environmental impacts of dredging on the Kansas River. In a study sponsored by the Kansas Department of Wildlife and Parks (KDWP), the researchers surveyed major dredge holes on the Kansas River with a sophisticated new measuring technology, an acoustic Doppler instrument that mapped river channel topography and measured water velocity. They documented riverbed incision in dredged reaches, and attributed excessive bank erosion both upstream and downstream of dredge sites to that activity. They also discovered that while the Kansas River averages four to five feet deep, active dredge holes can measure up to forty feet deep.

Other points of interest from the research:

- These dredge holes "migrate" both up and downstream, sometimes very quickly depending on water flow. Even during small flow increases, researchers documented the upslope lip of a dredge hole traveling upstream. Unless bedrock or a physical structure like a dam stops the hole, it can even migrate up the tributaries. ***This means that the impacts of dredging are not limited to the dredge holes, but can affect the entire Kansas River and the watershed.***
- Fish habitat is significantly different around dredge holes. The impact of migrating dredge holes on tributaries could affect endangered species like the Topeka Shiner, and more study is needed to understand how dredging can impact fish throughout the riverine ecosystem.
- Dredging in a sand bed river like the Kaw deepens and widens the river channel, causing erosion to the riverbanks. This causes a drop in both the water level of the river and the adjacent water table in the floodplain. In turn, this drop has the potential to affect municipal wells and intake pipes for water treatment plants and irrigation rigs. The drop in water level can also affect river vegetation like the cottonwood, whose roots need to reach a good water supply.
- When briefing FOK on the preliminary results of the research, Daniels stated: "If you take 3.2 million tons from the river bottom, then the river will take 3.2 million tons from the riverbanks, trying to balance the sediment load in the system. That's the simple physics of how water works in river channels to transport sediment. Any riparian owner should be worried, particularly farmers with unforested riverbanks next to their fields. So should anyone with a water intake pipe or a creek in their backyard. The effects of in-channel dredging will propagate both upstream and downstream from the dredge site until a hard control point, like a dam or a bedrock outcrop, is reached. That means tributary streams as well as the main river."

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- How fast will the dredge holes move? Water movement on the Kaw is greatly influenced by how much water the Army Corps releases from upstream reservoirs. Extreme rains plus reservoir releases can add a lot of extra velocity to the Kansas River system. In some circumstances, this may mean the dredge holes have the potential for very rapid movement. Daniels is seeking additional funding for a second phase of the study, to model dredge hole migrations under different flow regimes.

Again, this study represents a major and significant increase in our knowledge about the environmental impacts of the Kaw. These new circumstances and information are very relevant to the environmental concerns and effectiveness of the Final Environmental Impact Statement (EIS) and Regulatory Plan for the administration of permit applications for commercial dredging activities on the Kansas River, implemented in 1991 under the National Environmental Policy Act (NEPA). According to this new evidence, the Regulatory Plan is no longer effective and needs to be updated.

PUBLIC INTEREST REVIEW

Private dredging operations threaten critical public uses of the river. As FOK discusses below, the probable cumulative impacts of the proposed dredging activity on the public interest are detrimental in both the long and the short term, as evaluated under the guidelines promulgated under the authority of Section 404(b) of the Clean Water Act (33 USC 1344). The Daniel and Paukert discovery that dredge holes can migrate even up the tributaries means that the impacts of dredging are felt throughout the Kansas River watershed, with the widespread potential to affect conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and, in general, the needs and welfare of the people.

FOK will mention only a few of the implications for dredging's impact on the general needs, welfare, and environment of people in the Kansas River watershed:

- **Water Quality, Water Supply and Conservation, Energy Needs.** According to the Kansas Department of Health and Environment (KDHE), more than 600,000 Kansans depend on the Kansas River for their water supply, either from treating river water or obtaining well water. When dredging lowers the river level and the water table level, it puts at risk the drinking water for more than 20% of the state's population. These people need affordable drinking water a lot more than they need sand, especially when sand is easily obtainable from sand pit mines. Likewise, the intake pipes for three major electric power plants lie along the Kansas River. Cumulatively (and especially during critical hot summer months, when river flows tend to be low), these plants produce power that is used throughout the region. Diminished water levels threaten their ability to produce this power. Dredging also has an impact on water quality: it stirs up silt that kills mussels and other aquatic life and is expensive to remove from drinking water; and it churns up old industrial pollutants (like PCBs and heavy metals) that have settled to the river bottom, and adding to the river's contamination levels. This is especially a problem in the stretch between Lawrence and Eudora where KDHE and KDWWPT has issued fish consumption advisories and warnings.
- **Soil Conservation, Economics, Land Use, Shoreline Erosion and Accretion, Energy Needs, Food and Fiber Production, Floodplain Values.** Some of the most valuable agricultural topsoil in the nation and the world lies along the Kansas River, and its crops are used for

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biofuels, food, and fiber. Dredging the river bottom causes erosion of the riverbanks. Any loss of this topsoil resource has an economic impact on farmers and other riparian property owners. Likewise, the erosion and migrating dredge holes also threaten flood control structures and valuable taxpayer assets such as roads and bridges. Private railroads also make extensive use of tracks through the Kaw Valley, and some portions of the tracks are sited extremely close to the river. These trains are major transporters for goods and raw materials, including the coal for power plants located in the eastern United States.

- **Fish and Wildlife Values.** Dredging affects fish populations in two major ways: (a) Fish habitat is significantly different around dredge holes, which changes the predation patterns and dynamics of native and invasive fish communities, and (b) The impact of dredge holes migrate up the tributaries. More study is needed to see how endangered species like the Topeka Shiner are affected, as well as other fish throughout the riverine network. Nineteen threatened and endangered fish species have been collected in the Kaw, six since 2006.
- **General Environmental Concerns.** The stability of the river channel and riverbanks are critical not only to the state and region's community and economic survival, but also to the very ecological integrity of the Kansas River watershed and the tributary ecosystems that depend on it. The environmental impacts of dredging threaten this complex network. The Kansas River is the longest prairie river in the world, and it runs through a prairie ecosystem that is already under pressure from commercial agriculture. Most of the river species – animal, vegetable, fish – have very little habitat left, and already find themselves restricted to increasingly narrow environmental corridors.
- **Recreation and Esthetics.** Recreation is already an important public use of the Kansas River. The Department of the Interior has also just declared the Kansas River Water Trail as one of its 101 Top Conservation Projects under the America's Great Outdoors Initiative (<http://www.doi.gov/news/pressreleases/AMERICAS-GREAT-OUTDOORS-Salazar-Highlights-Two-Proposed-Projects-in-Kansas-to-Promote-Outdoor-Recreation-Conservation.cfm>). Canoeing and kayaking recreation revenue in Kansas is calculated at around \$3.7 million per year, and the Kansas River now has thirteen river access points and/or parks in eight communities. Plans are currently underway for at least three more. Recreation brings income to these river communities, and dredge sites not only ruin the aesthetics of river kayaking, but cables attached to dredging rigs also cause hazardous conditions for recreational boaters.

COMMENTS ON SPECIFIC PERMITS

Friends of the Kaw opposes the combination of Kaw Valley Companies three permits into one permit commencing at river mile 9.4 and terminating at river mile 16.9 and the increase of tonnage from 400,000 to 500,000 tons. As shown on page 7 of the public notice the permit appears to allow dredging within the 500' of both the I-435 bridge and the WaterOne weir and coffer dam and allows dredging within 2,500 feet downstream of the dam – this is not permitted in the current regulatory plan and not addressed in the current public notice. We do realize that the weir while still in place has been superceded by a recently completed coffer dam built on bedrock - this was at a multi-million dollar project paid for by the public as was the I-435 bridge. Repair or damage to either of these structures would again be paid for by the general public not by the dredging industry – that is totally unfair and punitive to the general public. From the current regulatory report “This reach of the river from Bonner Spring to the confluence of the Kansas and Missouri River (approximately river miles 0 - 22) has

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historically been the most heavily dredged reach of the Kansas River” – this is evident because of the lack of any visible sand bars at even very low water levels for at least the past 20 years. Sand dredged from this section has to be predominately transported from the upstream banks and bed causing increased erosion upstream. Sand dredging operations below the WaterOne coffer dam have and will cause further down cutting of the down stream channel bed. Channel degradation on the Missouri River also contributes to degradation of the lower Kaw. Consequently the tonnage limit should be reduced rather than raised by 100,000 tons or dredging should cease in the section below the WaterOne coffer dam. A more specific complaint stems from Kaw Valley Companies land plant on river left below the WaterOne coffer dam. Friends of the Kaw has witnessed Kaw Valley Companies returning water pumped from the sand dredging operation by merely dumping it back down the bank causing an erosion gully and increasing sedimentation to the river. Kaw Valley Companies has no settling pond or even pipes for the return water at this location.

From Holliday Sand and Gravel’s permit application dated August 5, 2008, the company had three permits (river miles 20.55 – 20.6, 21.0 – 21.15, and 18.65 – 20.15) the current public notice only references two permits (river miles 18.65 – 20.15 and 21.0 – 21.15.) The map shown of figure 8 of the public notice at least allows for no dredging within 500’ of the Kansas Highway 7 Bridge. This inconsistency as well as the issuance of permits on a company basis makes it very hard for any one not dealing with this matter on a regular basis to understand. It is almost impossible for the general public to understand exactly how many dredge sites are being permitted. At first glance it appears that the number of dredging permits is being decreased but in actuality the permits are being combined and/or reaches are being extended. The expansion of dredging on the Kaw is cleverly concealed in the proposed presentation.

The addition of two in-river dredge sites proposed for Master’s Dredging at river miles 26.1 – 27.6 and 28.3 – 29.8 are the most disturbing to Friends of the Kaw. This stretch has been closed to dredging because of unacceptable bed degradation and should not be exploited again. This is also the five-mile stretch that Friends of the Kaw uses for the majority of our Educational Float Trips (we host close to 300 individuals per year.) This section is also used by many other paddlers because it is a scenic, short stretch in the Kansas City area between two easily accessible boat ramps (De Soto and Cedar Creek.) This is a very popular float because it can be done in a half of a day and has a very short and direct shuttle route. This short float is also located in the most populated area on the river and is used by many novice paddlers and families with children. Friends of the Kaw estimates that in a given year over 500 individuals paddle this section of the river. Introducing two dredging operations between De Soto and Cedar Creek adds dire safety concerns for many novice paddlers.

Master’s Dredging and Penny’s Aggregate are reapplying for four existing permits between Lawrence and Eudora. Currently there are only active dredges near the entrance of Mud Creek and just below Bowersock dam. Several years ago Master’s dug a ramp across from the large island near Mud Creek and illegally dredged within 100 feet of the island. Friends of the Kaw reported this to the USACE and Master’s was required to move their dredge from this area but the damage was already done to the island as well as a nice sand bar across from the island. Friends of the Kaw has always questioned why Penny’s Aggregate is allowed to dredge down stream from the Bowersock Dam – especially since no records exist on how the original dam was constructed. With the preliminary information documenting migrating headcuts caused by dredging operations provided by a soon to be released K-State study we recommend that the dredge permit below Bowersock Dam be denied.

Part of the dredging proposal before the Army Corps is to re-open a closed dredge site above Topeka. The Army Corps previously shut down the site, operated by Meier’s Ready Mix, due to unacceptable

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bed degradation. This company applied to reopen this section in February of 2011 but voluntarily withdrew their permit because the area was barely recovered from the previous years of dredging. We would like to know what has changed in the last six months to warrant the reapplication for dredging in this section. The Daniels and Paukert research demonstrates that re-opening this dredge stretch would have dramatic environmental consequences. As Daniels stated to FOK: “Whatever happens above Topeka will eventually migrate upstream through the entire network, stopping only at the bases of Tuttle Creek and Milford and other dams. It could happen quickly, within one to two years. Dredging incisions set up cascading environmental effects – bed degradation, riverbanks become unstable and steep from accelerated erosion, etc. Change happens very quickly on a sand bed river.”

NPDES AND 404 PERMITS

FOK contends that the USACE should require all of these dredging operators to submit NPDES and 404 permits. In general, FOK maintains that (1) discharges from sand and gravel dredging operations on the Kansas River are not “incidental fallback,” and (2) that such discharges are thus subject to the Corps’ permitting process. FOK also maintains that (3) the Corps cannot issue a blanket determination that commercial dredging operations on the Kansas River result only in incidental fallback, and that (4) the Corps is bound by 33 C.F.R. § 323.2(2) to provide project-specific evidence showing that such dredging activity results in only incidental fallback.

We make these claims on the basis of the following authorities:

- Please see section 323.2 (3) (i) of the Corps of Engineers, which states: “Discharges of pollutants into waters of the United States resulting from the onshore subsequent processing of dredged material that is extracted for any commercial use (other than fill). These discharges are subject to the section 402 of the Clean Water Act even though the extraction and deposit of such material may require a permit from the Corps or applicable State section 404 program.”
- Also, in accordance with Section 404(a) of the Clean Water Act, the Army Corps of Engineers (the “Corps”) is authorized to issue permits for the discharge of “dredged or fill material” into the waters of the United States. 33 U.S.C. § 1344(a). Under the Corps’ own regulations, permits are “required for the discharge of dredged or fill material into waters of the United States.” 33 C.F.R. § 323.3(a). The “term discharge of dredged material means any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States.” 33 C.F.R. § 323.2(1)(3). *Emphasis added.*
- Likewise, the Corps regulations state, “[t]he Corps and EPA regard... in-stream mining or other earth-moving activity in waters of the United States as resulting in a discharge of dredged material unless project-specific evidence shows that the activity results in only incidental fallback.” 33 C.F.R. § 323.2(2). *Emphasis added.* These regulations define “incidental fallback” as the “redeposit of small volumes of dredged material that is incidental to excavation activity in waters of the United States when such material falls back to substantially the same place as the initial removal.” 33 C.F.R. § 323.2(2). *Emphasis added.*

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In general, in-stream commercial sand and gravel dredging discharges do not result in “only incidental fallback.” By definition, for a dredging discharge to be considered “incidental fallback” such discharge must fall “back to substantially the same place as the initial removal.”

STUDY COMMENTS

FOK also wants to reiterate our comments concerning the draft report: *Hydrologic and Geomorphic Changes on the Kansas River* (August 27, 2010). We believe this report is a step in the right direction and we are grateful that serious consideration is being given the consequences of commercial sand and gravel mining to the Kansas River. However, we do have significant concerns. In particular, we question the completeness of the limited data set, and encourage that the study be regarded as a work in progress.

For the following reasons, we submit that in its current form, the USACE not use this study as the basis for any permit decisions such as this one, until at least three major problems are addressed: The U.S.A.C.E. and/or the state of Kansas must (1) compare several years of data from the cross sections on the non-dredged sections of the Kansas River, (2) resurvey the river at lower water levels, and (3) incorporate missing data regarding sediment transport, water quality and aquatic life.

To further explain our concerns:

- Friends of the Kaw maintains that scientifically, a qualitative assessment of geomorphology is the key to assessing the riverbed’s condition, and that it provides important data critical for the dredging permit process. The geomorphology approach involves conducting fieldwork at much lower flow levels and at a much slower rate (ie, using kayaks rather than motorboats) over long periods of time. FOK has used these methods to develop a substantial database on control structures in the river.
- In contrast, the study conducted by the U.S.A.C.E. Kansas City Office gathers together a number of existing datasets on the hydrology of the Kansas River, and combines it with an analysis of cross-sections conducted in dredged sections of the river since 1993, with the intent of examining whether it is possible to detect an impact of dredging on river geomorphology. We challenge whether these methods represent an adequate assessment of channel morphology in dredged and undredged reaches. Also, an inherent danger in combining existing datasets from diverse sources is that, if no significant patterns result, then there will be a temptation to conclude “no impact” rather than “insufficient data.” We believe that the draft report already leans strongly in this direction.
- The researchers also conducted a three day river survey, but during a high river flow level when all in-river structures (including Bowersock Dam) were submerged. In our opinion, this is an important opportunity missed. A great deal of useful data on the channel can be obtained relatively easily if the river is surveyed at low water, and the USACE cannot reasonably claim to have surveyed the river with only three days of field work carried out at flood levels. As the report stated on page 31: “The many sand bars and other bed features of a braided channel were completely submerged on the days of the survey.” However, we would like to point out that these very features are of concern when examining the impact of dredging.

RECENT RECOMMENDATION TO CURTAIL DREDGING ON THE MISSOURI RIVER

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The USACE has recently established that in-river dredging be curtailed on the Missouri River because of unacceptable degradation and we contend that it makes no sense to expand dredging on the Kaw for that very reason. Sections on the Kaw have been closed to dredging because of unacceptable degradation in the past and we contend that it will happen again. The Kaw has been dredged for many years and until recently these companies operated in essence behind closed doors because physical access to the river was extremely limited. That has changed in the past ten years with the addition of thirteen new access ramps to the Kaw with two more in the final planning stages. Friends of the Kaw requests an explanation on why damage caused by in-river dredging on the Missouri River is any different than damage caused by in-river dredging on the Kaw.

FRIENDS OF THE KAW'S RECOMMENDATIONS

Based on the preliminary K-State Study results, Friends of the Kaw would like the USACE to deny Kaw Valley Companies current dredging permits below the WaterOne coffer dam and Penny's Aggregate permit below Bowersock Dam. The two proposed permits by Master's Dredging east of De Soto and Meier's Ready Mix/Victory Sand in west Topeka should not be approved as these sections are now just recovering from previous years of dredging. All other current permits should be given 5-year non-renewable permits to allow for a transition to appropriately sited pit mines in the Kansas River Valley.

* * *

Thank you very much for the opportunity to submit this public comment.

Sincerely,



Laura Calwell, Kansas Riverkeeper
Friends of the Kaw

PERMITS REFERENCED IN THIS COMMENT:

APPLICANTS

Kaw Valley Companies, Inc. (2011-1460)
Holliday Sand & Gravel Company (2011-1462)
Master's Dredging (2011-1465)
Penny's Aggregates, Inc. (2011-1466)
Meier's Ready Mix /Victory Sand Mining & Dredging, LLC (2011-1463)

PROPOSED PROJECT LOCATIONS

Kaw Valley Companies, Inc: Kansas River Mile 9.4 to 16.9
Holliday Sand & Gravel Company: Kansas River Mile 18.65 to 20.15 and 20.55 to 21.15
Master's Dredging: Kansas River Mile 26.1 to 27.6; 28.3 to 29.8; 42.6 to 44.1; and 47.1 to 48.0
Penny's Aggregates, Inc.: Kansas River Mile 45.2 to 46.7 and 49.6 to 51.35
Meier's Ready Mix / Victory Sand, LLC: Kansas River Mile 77.1 to 78.6 and 90.1 to 91.6

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RECEIVED
REGULATORY BRANCH
2011 DEC 13 PM 2:29

8 December 2011

To: Regulatory Project Manager, Kale Horton,
U.S. Army Corps of Engineers, Kansas City Regulatory Office, (USACE-KCRO)
635 Federal Building, 601 East 12th Street,
Kansas City, Missouri 64106-2896
at telephone 816-389-3656 or
email at kale.e.horton@usace.army.mil

From:
Thomas A. Ball
Missouri Stream Teams #2793, 3477, 3550 et al
1477 Crossbrook Drive
Webster Groves, MO 63119
Thomas.ball@sbcglobal.net

Re: Applications Numbered: 2011-1460, 2011-1462, 2011-1465, 2011-1463, 2011-1465,
& 2011-1466. Application to reauthorize commercial dredging in the Kansas River for 5
companies, expanding & relocating river miles dredged & increasing total sand 'take'
limit from existing 2.2 to anticipated 3.2 million tons.

1. **My summary request for USACE-KCRO action.**

After examining relevant documents, & for reasons discussed in following sections, I request that the US Army Corps of Engineers (USACE)- Kansas City Regulatory Office (KCRO) implement these actions:

- a. Publicize, hold, moderate and record public hearings regarding these permit applications else,
- b. Require applicants to produce a new Environmental Impact Statement (EIS) or Environmental Analysis (EA) pursuant to NEPA standards. If b., then a. is redundant, since b entails a per NEPA; else,
- c. Deny permittee's request for reauthorization, effectively closing the Kansas River for sand & aggregate commercial dredging and,
- d. Study & pursue mitigation & remediation of current, fluvial geomorphic & environmental degradation of aquatic habitats, banks & levees near the previously authorized dredge sites and,
- e. Recover costs for said remediation, currently borne by the US taxpayer or else unfunded, for any damages directly attributable to permittee's past dredging actions from the companies that committed those actions.
- f. Encourage permit applicants to use alternative sites outside of the floodplain; and best-practice, practicable alternatives for the requested & denied actions (per 44 CFR Ch. I, Part 9.9 b1; EO 11988, and current versions of 404b1 USACE guidance documents).

2. Discussion of reasoning for the above request.

- a. As KCRO stipulates in public notice, the public has a right to request public hearings for permit applications that are controversial. The arguments and discussion below will support my contentious belief that this particular application and these anachronistic, legacy technologies (commercial, in-stream, sand dredging) are, indeed, controversial. If KCRO requires applicants to produce a new EIS, then public hearings would naturally be required as part of that process & no special public hearing in advance would then be necessary. However, absent a required new EIS, a public hearing should be held and the date for that hearing should be set **after the 2011 holiday season**, so that the public will have access to more recent science data & analysis anticipated in the Kansas State research report to be published sometime in January 2012.
- b. The 1990 EIS that KCRO holds to rely as basis for the proposed action-- and for the creation of the ongoing Regulatory Plan-- is now, self-evidently, out of date & a potentially dangerous source of obsolete science data.
 - i. The proposed activity is not one for which KCRO has made a determination of “categorical exclusion” from NEPA requirements pursuant to current guidance documents from the Council on Environmental Quality (CEQ).
http://ceq.hss.doe.gov/current_developments/new_ceq_nepa_guidance.html
 - ii. The noticed permit application does not allege or refer to any Supplemental Draft EIS or other Supplemental Environmental Analysis conducted during the past 21 years. Reliance on the 1990 EIS data & methods would be long past most best-management practices.
 - iii. On it’s own merit, the 1990 EIS & subsequent Regulatory Plan, have failed to prevent continued riverbed degradation in several units, and over a period of years, despite “unacceptable degradation during analysis of previous channel cross-section surveys (exceeding 2 feet of degradation in a 5-mile-long reach of river)”. For example, see the final graph – years 2004-2007 in the Meier’s Redi-Mix/ Victory expired permit application at <http://www.nwk.usace.army.mil/regulatory/ExpiredPN/2003-1759.pdf> for a site-specific instance relevant to the currently proposed permit. Dredging in that degraded area was not halted until June 2006, which is too long. “Riverbed degradation and it’s associated secondary impacts such as bank erosion and channel widening, adversely affect the river’s morphology and ecology and non-dredging interests located in and along the river” (EIS 1990, pg 27.) Indeed, this continued degradation causes one dredger (Masters) to propose permanent closure to dredging at RM 35.4-36.4. Dredging should be halted until a new EIS is completed.

- iv. The decision on whether to renew this (these) permits should take into account more recent studies. A new EIS is the proper document to incorporate these newer studies, as this is an activity that has previously required an EIS in the past.
(<http://ceq.hss.doe.gov/nepa/regs/ceq/1501.htm#1501.4>)
For example, the August 2006 KC Levee FEIS should be considered, with an eye to examining the extent to which continued dredging contributes to toe cut & bank slope failure, and to increased probability of underseepage & sand boils in floodplain areas proximal to dredging.
http://www.nwk.usace.army.mil/Projects/KCLEvees/EIS_download.cfm
- v. Additionally, the Kansas Geological Survey's Kansas River Corridor study (Open-file Report 98-2, January 1998) should be considered. <http://www.kgs.ku.edu/Publications/KR/index.html>
This report has found that almost every thalweg along the studied area had decreased in elevation, on average, about 5 feet or 1.5 meters. http://www.kgs.ku.edu/Publications/KR/kr_hydro.html partly as a result of the 1993 flood, but also partly as a result of dredging.
- vi. I have recently heard that researchers, Melinda Daniels and Craig Paukert, at Kansas State have another study, due to be published in the next month or so, that should perhaps be included or examined in a new EIS document.
- vii. It is entirely possible that global climate change impacts may be observed & should be considered in management of the Kansas River. In 2009, seventeen federal agencies—including the Dept of Defense-- collaborated on the report entitled **Global Climate Change Impacts in the US (2009)**, available for download at: <http://www.globalchange.gov/what-we-do/assessment/previous-assessments/global-climate-change-impacts-in-the-us-2009> .
Models presented in that report describe the Missouri River basin, generally, as likely to experience continued & increasing low flows and drought along with an increase in frequency and severity of extreme precipitation events (increased drought, but also increased flash flooding). Given that current levels of CO2 emission are already trending higher than the worst case scenario modeled in that report, it would seem some thought should be given to these two extreme conditions (low flow and extreme flooding) when considering the possible impact of the present permit applications. If this report turns out to be accurately predictive, adaptive management may need to consider more frequent, seasonal or bimonthly monitoring rather than relying on Annual Mean Flow (for instance).

- viii. Continued severe degradation on the Missouri River downstream of its confluence with the Kansas River was duly noted in several places in the Missouri River dredging study available at: <http://www.nwk.usace.army.mil/regulatory/Dredging/MO/MOredging.htm> The contribution of continued dredging on the Kansas River to this degradation should be studied.
- ix. Large sections of the Kansas River appear on the EPA approved 2010 CWA section 303(d) list as impaired for various metals (for instance, lead), total suspended solids, biologicals such as E. coli, PCBs & others. Total Maximum Daily Load (TMDL) documents have been prepared and are in place. Chlordane levels, previously detected in fish tissue, have fallen upstream of dredging and the Kansas River has been delisted to Category 2 for Chlordane. Nevertheless, to the degree that dredging is causally connected with erosion of bank subsoils, & to the degree that subsoils sequester metals & other pollutants, it can be assumed that dredging is at least partly responsible for the addition of new pollutants into already impaired waters of the US & Kansas. http://www.kdheks.gov/tmdl/download/2010_303_d_List_of_All_Impaired_Waters.pdf
- x. There is new construction ongoing at the Bowersock Mills dam site which may change hydraulic flow patterns locally. The details are not transparent to me or the general public, since most construction data is hidden from public view under the Federal Energy Regulatory Commission's Critical Energy Infrastructure Information (CEII) rule. <http://www.ferc.gov/legal/maj-ord-reg/land-docs/ceii-rule.asp>
Whether or not the dredging permit applications will endanger or threaten this (federal?) facility will need to be looked at by someone who has the authority & security clearance to examine those documents. They may be found online at the FERC e-library (<http://www.ferc.gov/docs-filing/elibrary.asp>) with a search for permit # P-13526 or "Bowersock" in the general text search for hydro projects.
- xi. In summary, & for the above reasons I believe there is a substantial possibility that agency action (approving these permit applications) could significantly affect the quality of the human environment. I further believe that a new EIS is called for. Absent a new EIS, a public hearing is called for as stated in (1.) above.

Thank you for your service, and for the opportunity to public comment on these permit applications. I hope you will accept this email and/or attached doc file as my timely submission before the 12/09/2011 noticed deadline. A signed hardcopy will also be postmarked to your address above, today. Thank you, again.

Sincerely, Thomas A. Ball

signed 8 December 2011



8 Dec 2011