

## **Abstract**

This project deals with dredging, or mining for sand, in the Kansas River. The introduction outlines the purpose of the project, which explores how mining for sand in the river affects 1) people who live in its watershed, 2) the part of the river that runs through Douglas, Johnson, Leavenworth, Shawnee and Wyandotte counties in Kansas, 3) businesses, including the commercial dredging industry. The background section gives a recent history of the problem. The next section explains how local media have covered the issue. The newspaper article explores dredging in detail, focusing on the stretch of the river in Topeka and Shawnee County. The conclusion contains limitations, ideas for future research and recommendations.



Dredging in the Kansas River:  
An Innovative Approach to a Newspaper Article

by

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Submitted to the William A. White  
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fulfillment of the requirements  
for the degree of Master of Science

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## Acceptance Page

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## **Introduction**

Dredging in the Kansas River has been a contentious issue in northeast Kansas for years. On its most basic level, the issue boils down to the public's need for natural resources that the river provides. Environmentalists, dredgers and scientists have debated how these resources can best be gathered in a way that serves the greatest good for the greatest number of people.

The problem involves a tension between the public's desire for low-cost sand for construction projects and the environmental impact of the mining process used to gather it. Dredgers remove sediment from the riverbed, contributing to the lowering of the riverbed. This may hurt both the river environmentally and the public economically. The release of water from reservoirs and natural flooding also contribute to the lowering of the riverbed. Biologists contend that the river has never been studied enough to conclude that dredging is the sole cause of the lower riverbed. Dredgers contend that mining the river for sand is cost-efficient. Environmentalists contend that dredging restrains river recreation and want dredgers off the river.

The purpose of my research on dredging in the Kansas River will be to see how mining for sand affects 1) people who live in its watershed, 2) the part of the river that runs through Douglas, Johnson, Leavenworth, Shawnee and Wyandotte counties in Kansas, 3) businesses, including the commercial dredging industry. This project will provide a narrow and in-depth, yet uncomplicated, perspective on a



problem that has received little more than episodic attention in the region's media. I plan to write a newspaper article that focuses mostly on dredging in the stretch of the Kansas River that runs through the Topeka and Shawnee County areas. I hope to discover: 1) To what extent does dredging harm the Kansas River? 2) How does dredging affect the public? 3) What effects do the current environmental regulations have on the river and the public? 4) How can the parties involved compromise?

I hope to discover the answers by looking at how local and national media have covered river dredging in the past. I will look at the sources newspapers have used to explain the issue and how I can improve. I will follow and build upon the methods that other environmental reporters have used to write and report their stories. I will write an article that gives an objective, up-to-date perspective on dredging in the Kansas River.

The problem involves several groups interacting with the media and with all levels of government for decades in several cities located along the Kansas River. Most of the contention surrounds dredging sections of the river between Topeka and Lawrence.<sup>1</sup> My article will focus mostly on dredging in Topeka. However, almost all the recent literature on the subject pertains to dredging between Lawrence and Kansas City, Kan. By examining this literature, I hope to gain insight into the inner workings and concerns of all the groups involved and apply this knowledge to primary research for my article.

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1. Kansas Water Office, "Report to the Kansas Water Authority: Kansas River Channel Degradation" (report, University of Kansas, 2005), 7.

## Background

Dredging first took place in the early 1900s. Today, 12 companies have permits to dredge in the river. Most dredging has taken place in the section of the river from Bonner Springs to its confluence with the Missouri River in Kansas City, Kan. Seventy-five to 80 percent of sand has been removed from this portion of the river.<sup>2</sup> The quality of the sand exceeds that removed from the Missouri River, the next nearest river used for dredging.<sup>3</sup>

Dredgers use hydraulic pumps mounted on barges to transport sand and gravel slurry for sorting out on the shore. They drain the surplus water from the sand and gravel and then pump the water back into the river.<sup>4</sup> The riverbank land is public land so dredgers prefer to use it to dredge sand instead of having to acquire more expensive private land.<sup>5</sup> Woody Moses, lobbyist and executive director of the Kansas Aggregate Producers Association, said that dredgers had few places to

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2. Ibid.

3. Davidson, Jennifer. "Sand and Gravel Dredging on the Kansas River" (newspaper article, University of Kansas, n.d.), 3.

4. *Lawrence (KS) Journal-World*, "Environmental Groups Want Dredgers Off River," September 5, 2003, America's Newspapers.

5. Davidson, "Sand and Gravel Dredging," 3.

6. Gwyn Mellinger, "Warning Doesn't Worry Dredgers," *Lawrence (KS) Journal-World*, April 19, 1995, America's Newspapers.

7. Kansas Water Office, "Report to the Kansas Water Authority," 7.

dredge because the section of the river between De Soto and Kansas City has been depleted. This has forced dredgers to move upstream, he said.<sup>6</sup>

Many county and city commissions require dredgers to apply for permits, but the U.S. Army Corps of Engineers makes the final decision whether to grant dredging permits because it regulates dredging at the federal level. The Department of Agriculture's Division of Water Resources regulates at the state level. The corps' 12 existing permits were originally issued for five years and expired on Dec. 31, 2001, but have been "indefinitely extended."<sup>7</sup>

Dredging companies have faced increased scrutiny and denials when applying for dredging permits since 1990. In January 1990, the corps officially adopted regulations that restricted dredging in the river for the first time after it completed a study begun in 1977. The corps imposed a number of regulations, which included reducing the amount of sand dredgers could remove by one third, prohibiting dredging operations near manmade constructions such as water intakes and levees and increasing the distance between each dredge. They implemented these rules to lessen the risk of excessive river degradation and vulnerabilities to manmade structures and natural habitats.<sup>8</sup>

Some decisions have favored dredging companies. Shortly after the new regulations were implemented, the Legislature passed a bill decreasing the 15-cent

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8. Kirk Kahler, "Corps to Regulate Amount of Sand Taken From River," *Lawrence (KS) Journal-World*, January 31, 1990, America's Newspapers.

royalty per ton paid to the state to an 8-cent royalty per ton to undermine the Department of Revenue's increase of the royalty from 2 cents a ton to 15 cents a ton in November 1989.<sup>9</sup> In 1991, the Douglas County Commission approved the request of Kaw Sand Co. for a sand-dredging plant to be based along the shore of the Kansas River east of Lawrence, but denied a request for a nearby sand pit, where the sand would have been stored. The commission also approved the site for dredging. Conditional-use permits are typically applied for every five or 10 years, depending on the county.

In the early 1990s, opposition to the aforementioned plant, sand pit and dredging operations came from people who owned property near proposed dredging sites. Several property owners near the site opposed the plant and the dredging operation, citing possible contamination of an underground aquifer, loss of farmland, dust, bank erosion and increased traffic.<sup>10</sup> The city of De Soto denied Builders Sand a dredging permit for many of the same reasons in March 1990.<sup>11</sup>

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9. *Lawrence (KS) Journal-World*, "Bill Cuts Sand Dredging Royalty," April 5, 1990, America's Newspapers.

10. Steve Buckner, "Sand Dredging, Golf Complex Get County's OK," *Lawrence (KS) Journal-World*, June 20, 1991, America's Newspapers; Tim Hoyt, "Planners Approve Part of Sand Dredging Operation," *Lawrence (KS) Journal-World*, March 28, 1991, America's Newspapers.

11. Kirk Kahler, "De Soto Denies Sand Company Request," *Lawrence (KS) Journal-World*, March 9, 1990, America's Newspapers.

12. Peter Lundquist, "Sand Plan Dredges Up Opposition," *Lawrence (KS) Journal-World*, May 29, 1994, America's Newspapers.

13. Gwyn Mellinger, "Kaw Dredging Foes Win Chance to Speak," *Lawrence (KS) Journal-World*, April 12, 1995, America's Newspapers; Peter

Dredging companies found it increasingly difficult to dredge near Lawrence. The opposition had broadened to include Friends of the Kaw, an environmental group organized specifically to oppose the dredging operation, and the Kansas Canoe Association. Both groups opposed dredging because they thought it hindered recreation. In 1994, Victory Sand and Gravel Co. of Merriam, Kan., applied for two more permits through the corps. One was requested to dredge along a mile section of the river in Jefferson County, the other for a dredging plant, to which the company planned to pump the dredged sand.<sup>12</sup> Victory Sand withdrew its permits after the public and Friends of the Kaw voiced concern through public forums and letter-writing campaigns, but later reapplied for permits to dredge upstream in Jefferson County. The company's requests were tabled after environmental groups and residents requested hearings to discuss the permits. Penny's Concrete also

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Lundquist, "Sand Dredgers Change Plans For Location," *Lawrence (KS) Journal-World*, June 23, 1994, America's Newspapers.

14. Gwyn Mellinger, "Dredging Plan Gets County OK," *Lawrence (KS) Journal-World*, February 22, 1996, America's Newspapers.

15. Gwyn Mellinger, "Sand-Dredging Permits on Hold," *Lawrence (KS) Journal-World*, May 10, 1996, America's Newspapers.

16. Gwyn Mellinger, "Dredging Request is Denied," *Lawrence (KS) Journal-World*, December 12, 1996, America's Newspapers; Gwyn Mellinger, "Army Corps Won't Hold Dredging Decision," *Lawrence (KS) Journal-World*, December 11, 1996, America's Newspapers.

applied for a dredging plant permit, but the corps tabled its request for the same reason.<sup>13</sup>

In 1996, with the dredging operations still on hold, Lawrence environmental groups and others persuaded the Kansas Senate to pass a bill that would stop dredging on a 14-mile section of the river between Topeka and Lawrence.<sup>14</sup> The Senate approved of a two-year moratorium on dredging so that state officials could conduct a study that would assess whether the stretch should be designated a recreational corridor. The House later rejected the bill, even though it approved the study.<sup>15</sup>

In December 1996, Gov. Bill Graves asked the corps to delay the dredging permits, which the corps had delayed granting for almost two years. Graves wanted the corps to delay its decision until 1998, when the study on recreation would finish. But the corps declined and finally denied the permit for Victory Sand and Gravel. Shortly after, Penny's Concrete scrapped its effort to obtain a permit.<sup>16</sup> In 1998, the Kansas Legislature made several attempts to pass a bill that would have banned dredging on 65 miles of the river, setting those sections up as recreational

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17. Mike Shields, "River Recreation Bill Sinks in Legislation," *Lawrence (KS) Journal-World*, May 5, 1998, America's Newspapers; Mike Shields, "River Legislation Continues to Float," *Lawrence (KS) Journal-World*, April 3, 1998, America's Newspapers; *Lawrence (KS) Journal-World*, "House Revives Dredging Measure," March 24, 1998, America's Newspapers; Mike Shields, "Sand-Dredging Bill Gets Mired in Senate: a Senate Committee Changed Two Words in a Sand-Dredging Bill," *Lawrence (KS)*

corridors.<sup>17</sup> The recreational corridors would have covered only sections of the river west of Lawrence. Penny's Concrete then applied for another permit near Grantville. It withdrew that permit months later after it faced opposition from the public and the Jefferson County Commission.<sup>18</sup>

The problem also involves an odd pattern of record keeping by government agencies and dredging companies. In 1999, the Legislative Division of Post Audit found that several dredging companies misreported the amount of royalties they owed to the Department of Revenue. Neither the department nor the corps double check the records showing the number of tons of sand removed, as recorded by dredging companies.<sup>19</sup>

Dredgers also regulate their own operations with little oversight from government agencies. The corps forces dredging companies to hire an outside engineering firm to study the changes in the river every two years. The corps must approve of the engineering firm, which collects data the corps uses to determine how much the riverbed has degraded — risen or fallen, narrowed or widened. As stated in the permits, if the riverbed has degraded two feet or more, dredgers must discontinue operations. But in the fall of 2003, the corps did not have enough

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*Journal-World*, March 17, 1998, America's Newspapers.

18. Mike Shields, "Compromise on Dredging Angers Both Sides of Issue," *Lawrence (KS) Journal-World*, March 13, 1998, America's Newspapers.

19. Mike Shields, "State Audit Dredges Up Royalty Deficiencies," *Lawrence (KS) Journal-World*, January 26, 1999, America's Newspapers.

20. Davidson, "Sand and Gravel Dredging," 17.

money to finance a complete analysis of the data. Today, as the dredging continues, the Kansas Water Authority has recommended several sections of the river for study.<sup>20</sup>

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21. Answers.com, "Wikipedia: Kansas River,"  
<http://www.answers.com/topic/kansas-river>.



## Media coverage

The 169-mile river begins at the confluence of the Republican and Smoky Hill rivers near Junction City and joins the Missouri River at Kaw Point in Kansas City, Kan.<sup>21</sup> The river was named for the Kansa, or Kaw, tribe of Indians who lived on its banks. A massive water runoff from melting glaciers formed the river 600,000 years ago and when the water flowed over eastern Kansas it transported large amounts of sand over the Lower Kansas River Basin.<sup>22</sup>

For hundreds of years, the Kansas River has played a significant role in the lives of those who have lived along its banks. In 1941 historian Floyd Benjamin Streeter wrote, “in the heart of the Great Plains, where so much of the dramatic history of the West has been made and where countless folk tales have originated, flows the Kaw River...Each season enacts a new drama on its banks, adds a new chapter to the folk-say of the plains.”<sup>23</sup>

The Delaware, Shawnee and Kaw Indians farmed along or near the river and in the nineteenth century, Americans such as General Zebulon Pike, Major Stephen H. Long and John C. Fremont led expeditions along the river’s banks and

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22. Davidson, “Sand and Gravel Dredging,” 3.

23. Floyd Benjamin Streeter, *The Kaw: The Heart of the Nation*, New York: J.J. Little and Ives, 1941, 3.

24. Streeter, *The Kaw*, 5; Santa Fe National Historical Trail, “Map 2: Independence, Missouri to Council Grove, Kansas,” <http://www.nps.gov/safe/fnl-sft/maps/map2/map2.htm>.

tributaries. Both the Oregon Trail and the Santa Fe Trail briefly passed through and near the river.<sup>24</sup>

After the Kansas-Nebraska Bill of 1854 opened the Kansas Territory to settlement, settlers located along the river and later founded towns such as Lawrence, Topeka and Junction City.<sup>25</sup> At the same time, smaller steamboats entered the river from the Missouri River carrying settlers and their goods. Colonists traded corn and wheat for other goods transported by steamboats until the end of the Civil War, when people relied on railroads for transportation.<sup>26</sup>

Today, industrial and municipal wastewaters flow in the river along with farm chemicals and livestock wastes. Pollution in the Kaw exceeds state water quality standards in downstream portions of the river and some fish contain high levels of chlordane and polychlorinated biphenyls (PCBs), both hazardous to humans.<sup>27</sup>

Water is one of the most important resources the river offers. The Kansas River drains a watershed of more than 60,000 square miles, much of the northern half of the state. Precipitation soaks through the soil and becomes groundwater, which saturates the deep sands, silts and gravels of the floodplain along the river. This groundwater moves toward and discharges into the river at low and normal

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25. Other cities located along the river: Belvue, Bonner Springs, De Soto, Edwardsville, Fort Riley, Lecompton, Manhattan, Ogden, St. George, Shawnee, Tecumseh, Wamego, Willard. Answers.com.

26. Streeter, *The Kaw*, 16.

flows. During times of high flow the river water moves out of the river channel and soaks into the sand and gravel along the riverbank. Communities, industries and irrigators in the Kaw Valley depend on the river for their water needs.

Farmers in the river valley also depend on soil. Much of the bottomlands is covered by silts left by the river during floods, while the region's rolling hills and bluffs are covered with a silt-like soil called loess. These rich soils, added with precipitation that averages more than 35 inches a year, make the Kansas River Valley a significant agricultural producer.

The region also yields sand, used in concrete and asphalt, buildings and roadways. Some of the aggregate comes from quarries where limestone is mined, then crushed.<sup>28</sup> Scientists have conducted few studies on the Kansas River. Much of the historical information on assessing the effect of dredging on fish populations in

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27. James E Sherow, "The Kansas River is Gauge of State's Health," *Lawrence (KS) Journal-World*, September 21, 1997, America's Newspapers; PCBs have been used as coolants and lubricants in transformers, capacitors and other electrical equipment. The manufacture of PCBs was stopped in the U.S. in 1977 because of evidence they build up in the environment and can cause harmful health effects. Agency for Toxic Substances and Disease Registry, "ToxFAQs for Polychlorinated Biphenyls (PCBs)," <http://www.atsdr.cdc.gov/tfacts17.html>; Chlordane is a manufactured chemical that was used as a pesticide in the United States from 1948 to 1988. Until 1983, chlordane was used as a pesticide on crops such as corn and citrus, on grass and in gardens. Because of concern about damage to the environment and harm to human health, the EPA banned all uses of chlordane in 1983 except to control termites. In 1988, EPA banned all uses. Agency for Toxic Substances and Disease Registry, "ToxFAQs for Chlordane," <http://www.atsdr.cdc.gov/tfacts31.html>.

28. Rex C. Buchanan, "The Kaw River Valley," *Lawrence (KS) Journal-World*, September 15, 1997, America's Newspapers.

the lower part of river comes from one study, conducted in 1982.<sup>29</sup> Scientists have received money from the state government to conduct studies, but not as much as they need.<sup>30</sup>

An unpublished paper by Jennifer Davidson details at length the arguments among dredgers, environmentalists, biologists, state and federal government officials and citizens. Most important, it covers the issue in depth instead of episodically as other newspaper articles have. Scientific studies on the impact of dredging similarly delve into the issue, but address the concerns of all the parties involved in less depth than the article. The article mostly focuses on the sections of the river closest to Lawrence and briefly addresses the issue in counties east of Douglas County.

The need for sand for infrastructure is also covered. The article states that dredgers currently pay 15 cents per ton in royalties per ton of sand and \$7.50 per ton to dredge. They would have to pay much more per ton to mine sand off the river because of added shipping, operating and land costs, two sources said. The article doesn't state the possible environmental damage that pit mining could inflict.

Campaign contributions from dredging companies and environmental groups to legislators are included. But the article fails to mention which legislators

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29. Scott Campbell, letter to Joshua Marx, U.S. Army Corps of Engineers September 2, 2003.

30. Paul Lichti (assistant director, Kansas Biological Survey), in interview, January 2006.

have promoted or opposed legislation to place a moratorium on dredging, though it includes Dennis Moore's request for \$300,000 in federal funds for a study of the river. None of the articles provide the total amount of money spent on studies.

The article comprehensively covers environmentalists' concerns about recreation, redistribution of chemical-laden sediment and destruction of dams and infrastructure from bank erosion. The article, however, falls short of including the impact of dredging on water quality that other articles mention.

The article does a superior job of incorporating biological aspects, though it includes the opinion of only one university biologist, who mentions the impact of dredging on the river's flora and fauna, the release of pollutants and riverbank erosion. Scientific studies performed by the corps and other state agencies are included, as well.<sup>31</sup> But more biologists and hydrologists would increase the credibility of a dredging article, as they have the greatest depth of knowledge in the matter.

Newspaper articles on the Kansas River from the *Lawrence Journal-World* and the *Kansas City Star* provide much information.<sup>32</sup> The articles draw heavily on environmentalists' points of view. In fact, Laura Calwell, riverkeeper for Friends of

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31. Davidson, "Sand and Gravel Dredging," 1-19.

32. A full-text search in America's Newspapers database using keywords "Kansas River" and "dredging" yielded 132 articles from the *Lawrence Journal-World* (1990-current), 17 articles in the *Kansas City Star* (1991-current) and three articles in *Topeka Capital-Journal* (2002-current). America's Newspapers.

33. Brent Frazee, "Extinction threatens tiny fish in both Kansas, Missouri: Neosho Madtom Reaps Benefits of College Project," *Kansas City Star*, February 14, 1993, America's Newspapers.

the Kaw, said in an interview that the *Journal-World* —which accounts for the vast majority of the published literature on the subject — adequately covered the subject.

The articles tend to cover the issue in small episodes. Most of the articles report the deliberations or decisions of city and county commissioners concerning dredgers' requests to obtain permits to allow them to operate in or near the Kansas River. Dredgers' requests range from permits for off-river sand pits to permits that allow them to dredge in the river.

Some articles, particularly in the *Kansas City Star* and *High Country News*, a bimonthly publication that covers environmental issues in the West, focus on dredging in other rivers. For instance, in Kansas' Cottonwood River, where a small catfish was nearly extinct, dredging has been prohibited since 1990.<sup>33</sup> In rivers in other states, dredging is used to deepen shipping channels or to create alternate water channels for use by power and utilities companies. In many cases, the contention the dredging issues create is similar to the contention of the debate in towns along the Kansas River: Environmentalists, scientists, Indian tribes, politicians and government officials argue whether recontamination from disturbed contaminants, such as PCBs, could threaten groundwater and harm fish and wildlife.<sup>34</sup>

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34. Rebecca Clarren, "A Dredging Dilemma," *High Country News*, January 17, 2000, <http://www.hcn.org>; Eric Barker, "Dredging Plans Stall on the Snake

But the debate often differs concerning why dredging is needed. In the Columbia and Snake rivers, for example, the Army Corps of Engineers approved dredging so that larger ships could travel on the rivers. Environmentalists make similar arguments against dredging that Kansas environmental groups have made: Dredging would harm fish populations and disturb contaminants resting at the bottom. They argue that dredges suck endangered fish out of the water, something not mentioned in any regional newspaper articles, and that dredging operations increase water pollution, which regional newspaper articles have often mentioned. However, groups such as Friends of the Kaw have argued mostly that dredging inhibits recreational activities such as boating on the Kansas River. The articles about dredging in other states never mention an industrial need for sand.<sup>35</sup>

In rare cases, dredging has been advocated to clean rivers of contaminants. General Electric discharged PCB's into the Hudson River north of Albany from its factories from 1946 until 1977. The EPA concluded that PCB's in river mud threatened wildlife and posed a cancer risk to people who regularly ate the river's fish. After a protracted battle among environmentalists, the federal government and

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River," *High Country News*, March 17, 2003, <http://www.hcn.org>; *High Country News*, "Bare Land at Bear Lake," February 20, 1995, <http://www.hcn.org>; Julie Elliott, "Dredging up Debate," *High Country News*, May 13, 2002, <http://www.hcn.org>; Laura Paskus, "Columbia Dredging Closer," *High Country News*, June 24, 2002, <http://www.hcn.org>; John Sullivan, "Dumping Ground Once Again New York Times," *New York Times*, December 17, 2000, America's Newspapers.

35. Clarren, "Dredging Dilemma"; Barker, "Dredging Plans"; *High Country News*, "Bare Land"; Elliott, "Dredging up Debate"; Paskus, "Columbia Dredging Closer."

General Electric, the company committed itself to removing PCB's from the Hudson River. It signed an agreement with the EPA on Oct. 6, 2005, to begin dredging mud from the river in the spring of 2007. Scientists reached a consensus that dredging was the best way to remove the chemical deposits in the river, despite some studies that warned of the river's recontamination if the PCBs were disturbed because of the dredging.<sup>36</sup> However, local environmentalists and biologists contend that dredging releases PCBs buried in sediment that contaminates the Kansas River.

Newspaper articles in other states focus on dredging to deepen shipping channels, but the articles neglect the commercial sand dredgers' side of the story. Dredging companies contend that they can help remove sediment from reservoirs. They contend this helps to leave more space to store water in reservoirs. They also contend that silt removal can prevent growth of all sorts of organisms in the lake, the most notorious being blue-green algae. The algae causes taste problems in water and forces cities to spend more on water-treatment options.<sup>37</sup> But this does not involve the Kansas River. Only a few articles mention that dredging can prevent flooding on farmland adjacent to the river. Few articles mention that an abundance of sand can help the area meet a growing demand for the manufacture of asphalt

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36. Andrew C. Revkin, "Invisible Stain: a Special Report," *New York Times*, June 5, 2000, America's Newspapers; Kirk Johnson, "To Dredge or Not to Dredge? PCB Study Is Neutral," *New York Times*, January 5, 2001, America's Newspapers; *New York Times*, "A Commitment on PCB's," October 16, 2005, America's Newspapers.

37. *Lawrence (KS) Journal-World*, "Dredging Up Business: Lawrence Resident Sees Potential for Government Projects," August 31, 2003.



and concrete. Sand could also be used for road maintenance and ice control. The articles also fail to quantify the increased costs that are passed on to consumers of sand and cement when dredging operations are forced to move their operations off the Kansas River.

One article states that dredging doesn't seriously inhibit river access for those using the river for recreation because, as an industry lobbyist says, "in high use on weekends and evenings, it's not in operation." He also says dredging with a suction device causes less environmental degradation than pit mining.<sup>38</sup> Facts and opinions from biologists could better prove points like these.

The articles also neglect scientists' points of view. Biologists' and hydrologists' opinions are valuable because they have more credibility and expertise than anyone involved in the dialogue: They have conducted scientific research on the matter. Scientists say the river needs to be studied more to determine the cause of riverbed degradation, or the lowering of the riverbed.<sup>39</sup> In a letter written on behalf of several scientists, Scott Campbell, research associate for the Kansas Biological survey, stressed the need for additional research to Joshua Marx of the corps. "We are frequently asked to render opinions about the environmental condition and health of the lower Kansas River... Answering these questions has been difficult because of the paucity of recent quantitative,

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38. Tim Carpenter, "Dredging Plans Renewed," *Lawrence (KS) Journal-World*, July 8, 1998, America's Newspapers.

40. Campbell, letter.

42. Lichti, interview.

comprehensive information and sampling data on the Kansas River.”<sup>40</sup> Rivers constantly evolve and scientists say they would like to conduct a biotic inventory, or a full-scale biological survey of the river, to understand the actual cause of the degradation. But few rivers in the nation have been studied to this degree.<sup>41</sup>

Some articles quote sources about issues in which a biologist’s opinion would make more sense. For example, one article says that Douglas County Commission Chairman Louie McElhaney, also chief of the Wakarusa Township Fire Department, was “not concerned about possible water pollution from the operation, but was troubled by the ‘cutting’ of the river. He said he wanted to wait and see what effect dredging would have on the river before approving the pit. ‘I think once the river is dredged in the center, it’s going to improve this situation,’ he said of potential river migration. ‘I would be a lot more comfortable at that time in issuing a permit for the pit than I would this evening.’”<sup>42</sup> The article never mentions the contentions of biologists, who rarely appear in the articles.

The articles tend to cover the stories in small episodes, but omit the story’s long-term conflict. For example, most articles fail to mention that the conflict between environmentalists and sand dredgers has been going on since the early 1990s. A graphic with a timeline of legislative actions and victories and losses for all sides involved would provide more context. Most important, readers need an

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43. Lichti, interview.

42. Tim Hoyt, “Planners Approve Part of Sand Dredging Operation,” *Lawrence (KS) Journal-World*, March 28, 1991, America’s Newspapers.

article that includes viewpoints of all the groups involved — one that describes the complicated issue in detail so that readers can be better informed on the subject.

## Method

In-depth reporting on environmental issues requires an understanding of technical and scientific matters that reporters may lack. Further, environmentalists may expect reporters to be on their side because of the public's perception of liberal bias in the mainstream media. Commercial dredgers may expect reporters to identify them as polluters and destructionists regardless of what they say or do. Even when sources from both sides talk, stories often end up with dueling quotes, leaving readers aware of a controversy, but confused about what to believe.<sup>43</sup>

Environmental reporters must do much of their reporting outdoors. At an Investigative Reporters and Editors conference, reporter Michael Fabey of *Defense News* said that reporters should not try to cover the environment from the office. "You have to go out there and trod through the soil with a farmer as the planting season starts or choke on the dust during the summer droughts," he said.<sup>44</sup> For this project, I need to visit dredging sites to observe their operations. I should also accompany environmentalists and scientists to areas where the river has been affected by dredging.

Fabey also recommends that reporters critically analyze environmental studies. Reporters must ask who conducted the studies and whether they appear in

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43. Brant Houston, Len Bruzzese, and Steve Weinberg, *The Investigative Reporter's Handbook: A Guide to Documents, Databases and Techniques* (Boston: Bedford/St. Martin's, 2002), 488.

44. Houston, Brant, and Weinberg, *Investigative Reporter's Handbook*, 489.

reputable, peer-reviewed journals. Reporters should also review files from every agency involved, including environmental impact statements. I need to review files from the Kansas Water Office, the U.S. Army Corps of Engineers, Kansas Department of Health and Environment, Kansas Department of Revenue and the Environmental Protection Agency.

The EPA has an extensive online database at [www.epa.gov/enviro/index\\_java.html](http://www.epa.gov/enviro/index_java.html) that allows users to search dozens of databases on various environmental topics:

- [www.toxnet.nlm.nih.gov](http://www.toxnet.nlm.nih.gov): Because some dredgers own plants along the shore of the river, TOXNET would be a good resource. The Web site, maintained by the National Library of Medicine, contains databases on toxicology, hazardous chemical and related areas. The site could answer questions as to how much of a toxic substance was released into the Kansas River, as companies have previously released toxic substances into the Kansas River from their plants.<sup>45</sup>
- [www.epa.gov/OGWDW](http://www.epa.gov/OGWDW): This site provides reports of quality of local drinking water and links to state Web sites.
- [www.epa.gov/OWOW/monitoring/wqreport.html](http://www.epa.gov/OWOW/monitoring/wqreport.html): This site contains a federally mandated inventory of water quality, known as the

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45. Mike Belt, "Discharge in River Traced to Chemical Plant," *Lawrence (KS) Journal-World*, November 10, 2005, [http://www2.ljworld.com/news/2005/nov/10/discharge\\_river\\_traced\\_chemical\\_plant/](http://www2.ljworld.com/news/2005/nov/10/discharge_river_traced_chemical_plant/).

305(b) report, produced every two years that describes water quality, identifies widespread water quality problems and describes programs implemented to protect waters. It includes lists of “impaired” streams and rivers called the 303(d) list.<sup>46</sup>

But before digging into government documents, I have to choose a publication that suits my reporting method. Publications owned and operated by organizations with specific agendas, such as the *High Country News*, a non-profit bimonthly newspaper that covers environmental issues in the West, may devote some space for an article such as mine. Its mission is to “inform and inspire people to act on behalf of the West's land, air, water and inhabitants.”<sup>47</sup> The publication that caters to an environmentally conscious audience would likely run the story, though it may take issue with the story’s potentially extensive coverage of dredgers’ opinions.

An organization like the *Kansas City Star* would give me more credibility as a balanced reporter, which would aid in my efforts to interview commercial dredgers. But it might be less likely to print regional environmental news. I would also have to adhere to a code of ethics, such as the Star’s.

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46. Houston, Brant, and Weinberg, *Investigative Reporter’s Handbook*.

47. HighCountryNews.org, “About HCN: Our Mission,”  
<http://www.hcn.org/aboutsummary.jsp>.

*The following is the story for publication in the Topeka Capital-Journal:*

Local dredger hopes to work the Kaw again after getting booted twice

The conflict in Topeka is part of a larger problem affecting business, the environment and the people of northeast Kansas.

Vince Meier points at a white crane fishing in the middle of the shallow Kansas River north of I-70 and MacVicar.

Meier stares in confusion at the bird that stands effortlessly on sand that rests a couple inches below the water's surface where he and his men used to work.

Until July 31, Meier and his crew of four used a machine, or dredge, to suck almost 300 tons of sand per hour from the brownish, turbid river. The U.S. Army Corps of Engineers forced him to stop the dredging here and a couple miles upstream. The corps said both of his operations lowered the riverbed by two feet in violation of environmental regulations.

"How we wear this river down, I have no clue," said Meier, who last December applied for a new permit to dredge on the river south of the junction of Highway 24 and Highway 4 in Topeka.

Meier is one of nine dredgers who actively operate on the river. He is the only dredger operating in Topeka, the latest battleground of proponents and opponents of dredging. The conflict centers on the fine brown sand that coats the bottom of the Kansas River. That sand and the bed upon which it lies provide

stability for the river and its fish habitats. It also provides cheap raw material for construction projects from Topeka to Kansas City — cheap, dredgers say, as long as restrictions and operating costs are kept at a minimum.

Environmentalists and others contend that dredgers destroy the river and should vacate it entirely; dredgers contend that they cause no harm to the river. Environmentalists say fewer restrictions would mean damage to infrastructure, a loss of recreational areas for boating and fishing and destruction of wildlife habitat. Dredgers say more restrictions on dredging would mean higher costs of building materials.

One of the problems in settling this dispute is that scientists say they don't know the true effects of dredging. It's something they have studied only minimally. They can offer conjecture, but no solid evidence one way or the other.

Meier sells the majority of his sand in the Topeka area. If you own a house, it's likely that about 200 tons of sand is mixed in with the concrete from the garage to the foundation. Your turnpike tolls have helped pay Meier for about 50,000 tons of his sand used in the road's asphalt and concrete in the past two years.

Named for the Kansa tribe of Indians who lived on its banks, the 169-mile river begins at the confluence of the Republican and Smoky Hill rivers near Junction City and joins the Missouri River at Kaw Point in Kansas City, Kan. A massive water runoff from melting glaciers formed the river 600,000 years ago. When the water flowed over eastern Kansas, it transported large amounts of sand



over the Lower Kansas River Basin. For more than 100 years, buildings and roads in Kansas have relied on sand and gravel extracted from the river between Topeka to Kansas City.

**Sand usage:**

- The average American uses 9 tons of sand per year
- Shawnee county uses about 1.5 million tons of sand per year
- The average house requires about 200 tons of sand for construction

Source: Edward Moses, Kansas Aggregate Producers Association

**The dredgers**

Dredgers use hydraulic pumps mounted on barges to transport sand and gravel for sorting out on the shore, where they process and store it on a few acres of land adjacent to the river. They drain the water from the sand and gravel and later pump the water back into the river. In 2005, dredgers removed 1,099,700 tons of sand from the river.

The corps, which requires dredgers to hire independent engineering firms to survey dredging operations every two years to find out whether they have lowered

the riverbed beyond two feet, found that Meier had exceeded that limit on both of his sites.

On July 31, the corps shut down Meier's dredging permit held under his newly purchased company, Victory Sand Mining and Dredging LLC, north of I-70 and MacVicar. For the same reason, the corps mandated that by June 2007 Meier shut down his nearby dredging operation at 10th and Urish Avenues, held since 1986 under his other company, Meier's Ready Mix.

Meier did not remove more sand than his permit required. Individual dredgers cannot take more than 300,000 tons of sand per year and in some areas the corps forces them to remove far less. If the riverbed rises, Meier can reapply for the permits.

Josh Marx, regulatory project manager for corps in Kansas City, Mo., said he hoped to make the decision on whether or not to approve the permit in the next couple months. The Regulatory Branch of the corps' Kansas City District regulates the river because of a section of the Rivers and Harbors Act of 1899 that bans obstruction and alteration of navigable rivers without a permit from the corps.

The approval process takes a long time because "there's a lot of information we have to gather," Marx said.

In December 2001, the corps decided to indefinitely extend permits that used to expire after five years. The corps has no plans to change the way it regulates Vince Meier's dredging operations.

“There will just be the same monitoring process that goes on now,” Marx said.

Sometimes the corps holds public hearings to gather information from the public. The corps has not held a hearing regarding this permit because Marx had not received enough requests for one, he said.

Meier said if the corps refuses to approve his permit, that would mean higher building costs for Topeka, he said. Meier said he sells sand for \$5.50 to \$6.20 a ton now; his sand costs as much as \$12 a ton if delivered on one of Meier’s dump trucks, which carry about 17 tons of sand. But he might have to charge 80 or 90 cents more per ton if the corps denies his permit, he said.

Dredging companies have faced increased scrutiny and denials when applying for permits since 1990, when the corps adopted a set of new regulations after several agencies expressed concern about damage caused by dredging. In its 1990 Environmental Impact Statement, the corps stated that commercial dredging had been “a major factor affecting riverbed degradation, bank erosion, channel widening, natural resource losses and damages to nondredging interests” in the river from Bonner Springs to Kansas City.

Dave Penny, Lawrence resident and former Lawrence city commissioner, left the river dredging business in 1993 when he sold the leases on his business to his brother, William Penny. Dave Penny now dredges reservoirs to remove excess sediment.

“I think I had some burnout, just dealing with government regulations,” Penny said. “Everything was changing; there were some radical changes.”

Before 1990, dredging went largely unregulated. In January 1990, the corps adopted a new “regulatory plan” that, among other restrictions, prohibited dredging near manmade structures — including dams, bridges, water intakes, levees and pipelines — to prevent damage and failure. The corps also banned dredging near natural formations, such as tributaries and islands.

Some companies avoid river dredging and instead mine pits of sand in the Kansas River’s floodplain. But dredgers say pit mining is not a viable alternative to river dredging, even though off-river sites contain better sand. Sand in the Kansas River floodplain is less abundant than near the Arkansas River in Wichita. Dredgers’ operating costs increase when they have to dig through useless material, or overburden, to get to the sand, they say.

Transporting sand from the Arkansas River floodplain is not an economically feasible alternative because of the cost of fuel.

“The problem is, we don’t have many places to go,” Penny said.

Edward “Woody” Moses, managing director of the Kansas Aggregate Producers Association, lobbies the Kansas Legislature to ensure that dredgers can continue to operate. Moses recalls the times when the issue reached its climax.

In 1996, Lawrence environmental groups and others persuaded the Kansas Senate to pass a bill that would stop dredging on a 14-mile section of the river

between Topeka and Lawrence. The Senate approved a two-year moratorium on dredging so that state officials could conduct a study that would assess whether the stretch should be designated a recreational area. The House rejected the moratorium, but it approved the study, which later found that the corridor should not be used solely for recreation.

In 1998, then Lawrence Republican Sen. Sandy Praeger made several attempts to pass a bill approved by environmentalists and dredgers. It would have banned dredging on 65 miles of the river, setting those sections up as recreational areas.

Moses said the dredging industry opposed the first bill, but supported the second bill because it would have allowed dredgers access to new sites.

“It could be better,” Moses said about the current situation. “There are some pretty severe limitations on us. But I guess we’re happy in the sense that we’re still there.”

Dredgers continue to operate in part because of the industry’s generous campaign contributions to several Republican candidates in Kansas. Lobbyist firms such as the National Sand, Stone and Gravel Association, the American Concrete Pavement Association and the National Ready Mixed Concrete Association have contributed \$22,500 to Republican candidates since 1998. However, since 1998, three Democratic candidates of Kansas have received \$41,218 from the Sierra Club, which opposes dredging. The Kansas Aggregate Producers Association does not

contribute to candidates, though dredgers have made significant individual contributions.

### **Keepers of the river**

The number of dredges and tons of sand they remove have decreased significantly throughout the years partly due to the active work of local environmental groups.

Laura Calwell, spokeswoman for Friends of the Kaw, said the 15-year-old group had focused on preventing dredging on the stretch of the river between Topeka and Lawrence. The group pays Calwell, also the Kansas “riverkeeper,” to look for illegal dumping, pollution and possible violations committed by dredgers.

The group opposes dredging, she said, because it lowers the riverbed, erodes riverbanks and releases particles of dirt that have toxic chemicals attached, such as now-banned PCBs and the insecticide chlordane. Calwell would like dredgers to mine for sand on land.

Calwell acknowledges that other processes, both natural and manmade, have contributed to the lowering of the riverbed, also known as bed degradation. But Friends of the Kaw also opposes dredging because it hinders river recreation activities, such as canoeing, she said.

Dave Murphy, a board member of the Kansas Natural Resource Council, opposes Meier’s permit application. He agrees with Calwell that dredgers should leave the river entirely.

Murphy, a founding member of Friends of the Kaw and the group's former riverkeeper, said that dredging in the bend of the river south of Kincaid Road would erode riverbanks and would cause damage to infrastructure.

The corps' regulatory plan tightly restricts dredging along the bend of river where Meier has applied. The plan states that dredges operating close to riverbanks have a "high potential to adversely impact" the stability of the banks.

Murphy said that putting a dredge near the sharp river bend would destabilize the bank if Meier degrades the area by two feet again.

"When it does that going around this bend, you've got a very expensive railway that's going to get torn up."

Marx said the plan calls for protecting the riverbank by preventing Meier from dredging 200 feet from the outside curve of the bank.

It's not just environmentalists who want dredgers off the river. Mike Hayden, secretary of the Kansas Department of Wildlife and Parks, said that even though sand would cost more, dredgers should mine on land. Hayden said bed degradation caused by dredging damages infrastructure needed for the public's water supply.

"That's why it makes a lot of sense to move to off-stream sites," Hayden said.

Water District One, which provides water for Johnson County residents, is one of several places where degradation has damaged infrastructure.

Tom Schrempp, director of production for WaterOne, said it built a rock jetty in the river in Wyandotte County in the 1960s to divert river water toward a water intake, an opening into which river water flows. But because of bed degradation, the water level dropped several feet, he said. Dredging took place close to the intake, Schrempp said.

In March 2004, the water intake near the I-435 bridge north of Holliday Drive was left “high and dry,” he said. Shortly afterward, an engineering study recommended that WaterOne build a weir, a dam-like structure, to hold the river’s original flow line toward the intake and to offset the ongoing degradation. Schrempp estimates that the weir will cost water customers about \$14 million. The Environmental Protection Agency has contributed \$500,000 so far.

None of that money has come from the sand dredging royalty fund, a state fund that collects 15 cents for every ton of sand removed from the states’ rivers. In the fiscal year ending in June 2006, the fund had amassed \$372,597. Of that amount, \$225,460 went to the state water fund to pay for water projects and \$75,153 went to counties and drainage districts near where dredging took place. Only one third of that drainage district money must be used for “bank stabilization, soil conservation or maintenance and operation of flood control systems,” according to state law.

The corps has restricted how close dredgers can operate to the intake over the years, but dredging still takes place farther upstream and downstream,



Schrempp said. WaterOne has 21 water wells that have been affected by a lowering water table because of degradation — dredging takes place close to the wells, he said. Schrempp has asked the corps to study the area to determine the causes and solutions to the problem, but the corps has not done so, he said.

“We haven’t tried to jump one way or the other on the bandwagon for or against dredging,” he said. “We have to rely on our state and federal experts” to make a decision.

### **The scientific method**

Dredgers and environmentalists have opposite viewpoints, but scientists who have studied the river say they cannot conclude that dredging is the sole cause of the river’s degraded bed or harm to fish. But dredgers have contributed to bed degradation, they say.

Scientists point to areas where bed degradation has occurred, resulting in erosion along the river’s banks. The river’s floodplain constitutes some of the most agriculturally productive land in Kansas and farmers continually lose floodplain land because of bank erosion. Bridge supports could collapse if banks lose stability, as well.

In 1982, scientists conducted the most comprehensive study of the lower Kansas River, where dredgers have removed the most sand from Kansas City to Bonner Springs. Biologists found that dredgers had removed sand faster than the

river had replenished it, thus contributing to the lowering of the riverbed. They also found that several species of fish, including sturgeon and catfish, declined through the dredged portions. The study, along with a few others, provided the impetus for the corps to regulate dredging more strictly in 1990.

Dredging isn't the only problem, though. Scientists say other processes have caused the riverbed to lower, such as reservoirs created by damming the Kansas River's tributaries. Reservoirs block the natural migration of sand from entering the Kansas River. The high volume of sediment transported by flooding also causes the riverbed to lower in some areas. Bed degradation along the Missouri River, where dredgers deepen shipping channels, has an effect on degradation in the Kansas River, as well, scientists say.

Scott Campbell, research associate at the Kansas Biological Survey and one of the 1982 study's researchers, said a lay person could see a "remarkable difference" between some portions of the lower Kansas River and the middle Kansas River, between Topeka and Lawrence.

Campbell would like to see the state and the corps fund more studies so that scientists could assess the health of the river.

"There's not been really any push to develop any criteria or information base that we could use as a tool to figure out is the Kansas River healthy now and be able to use that information in the future to know is the Kansas River getting better or worse?" Campbell said.

Paul Liechti, assistant director of the Kansas Biological Survey, would also like to see more studies.

“I think it would be quite useful to go back and take a look at this point in time, since they’ve changed the rules on how dredgers operate.”

Environmentalists contend that dredgers disturb toxins buried in the sediment, but Liechti points to a lack of research. Fish have ingested toxins in isolated areas, but scientists can’t really know without a full-scale study and sediment analysis, he said. People can safely eat fish caught in the Kansas River, except PCB-carrying bottom-feeding fish from Lawrence to Eudora, according to the Kansas Department of Wildlife and Parks Web site.

Wakefield Dort, retired professor of geology at the University of Kansas, has studied the physical nature of the river for decades.

Generally, if one digs an artificial hole in the course of a year or five years, the upstream edge of the hole will erode and the hole will enlarge upstream, he said. Holes dug in the middle of the river channel will expand sideways toward the banks, which will collapse and widen, he said.

“But the more you look into it...it’s not clear cut,” Dort said.

Dredgers argue that when they remove sand, an equal amount of sand comes down the channel and replaces it; environmentalists argue that dredgers cause erosion upstream and downstream, Dort said. The truth is somewhere in between, he said.

“You have these two opposing viewpoints: one is motivated basically by money, the other is motivated basically by the wish to preserve the environment as they see it and there’s been very little give and take,” he said.

### **“We need to change our ways”**

For now, Vince Meier will continue to mine sand in an Oakland-area pit and dredge his Ready Mix permit until June 2007. The corps might allow him to dredge those areas again, but he will have to wait until the riverbed rises. As Meier’s operating costs increase, he hopes the corps will approve his new permit, he said.

To prevent bed degradation, Meier said his company would move the dredge to different locations in his permit area more often, even though it would cost more.

“We need to change our ways of dredging,” Meier said.

But that’s not enough for Dave Murphy.

“He’ll be allowed to do two more feet of damage before he’s pulled off again and he’ll just be able to apply somewhere else,” Murphy said.

Meier said the public needed sand for asphalt and concrete and if dredgers were not allowed to dredge in the river, costs would rise sharply.

“Without sand, you’re not going to produce anything,” Meier said.

Meanwhile, the Kansas Water Office is working with several other agencies to study locations where the river has degraded and what aquatic life exists in those

areas, said Bob McDanel, water resource planner for the KWO. The agencies have spent about \$110,000 this fiscal year and the agencies have more money budgeted for the study next year.

But the study only addresses the impacts of degradation. Scientists still won't be able to determine to what extent dredging or other processes have contributed.

"I can understand the frustration of people who want a definitive answer when we don't have a definitive answer," McDanel said.

## **Conclusion**

I began my project about commercial sand dredging in the Kansas River hoping that I would uncover some answers as to how it affects the problem of river degradation, which afflicts the river's habitat, its physical state and public and privately held infrastructure located along the river.

Dredging in the Kansas River has been a touchy issue in northeast Kansas for decades. The public needs the natural resources that the river provides, yet environmentalists, dredgers and scientists have argued how these resources can best be gathered in a way that serves the greatest good for the greatest number of people. This project added to the debate in an informed, innovative way because I conducted primary and secondary source research before doing formal interviews.

A review of the literature indicates that local media have generally covered the positions of environmentalists and to a lesser extent the positions of dredgers. Local media have generally neglected the corps' position and to a greater extent, scientists' positions. All of the articles lacked the breadth and depth needed to adequately explain the issue.

In most other states, river dredging generally takes place to deepen shipping channels and to clean up sediment laden with toxic chemicals. This demonstrates that Kansas faces a unique problem with unique parties involved.

The methods section provided insight into some methods commonly used by investigative environmental reporters. It stressed the importance of finding a

publication that potentially wary sources would find credible. The section also emphasized the value of ethics in reporting.

The article provided a detailed description of the problem, including the positions of its stakeholders. It provided recommendations on how to solve the problem.

This project has limitations. The story lacks sourcing of average people affected by dredging. In future stories, reporters should interview homeowners who have had to pay significantly more for building materials such as concrete. Voices of water consumers in Johnson County who would foot the bill for a new dam-like structure because of bed degradation likely caused by sand dredging should be interviewed, too.

Many opportunities exist for future research. As stated earlier, an odd pattern of record keeping by government agencies and dredging companies persists. Neither the department nor the corps double check the records showing the number of tons of sand removed, recorded by dredging companies. Reporters should investigate this thoroughly to find out whether the state has received the proper amount of royalties per each ton of sand and whether dredgers record the correct amount of tonnage.

Though the issue has gained more coverage in recent years, reporters could more thoroughly cover the other manmade problems that cause bed degradation in

the Kansas River: the buildup of sediment in reservoirs and the degradation of the Missouri River.

Regarding degradation in the Missouri River, each scientist I interviewed said the Missouri River has been studied to an even lesser extent than the Kansas River. This subject seems to have garnered the least attention and would make a great article.

Another topic of to be explored in future articles is the controversy over whether dredgers should be required to have wastewater permits. In addition to sand, dredgers suck water from the river and later return the same water to the river. Charles Benjamin, counsel for the Kansas Sierra Club, said that dredgers do not comply with the Clean Water Act, which requires wastewater permits for similar operations.<sup>48</sup>

Kathy Mulder, biologist at the EPA, said that if dredgers have pipes leading from containment ponds on land, they might possibly be required to have the permits to comply with section 402 of the Clean Water Act.<sup>49</sup>

Officials at the Kansas Department of Health and Environment said that dredgers don't need the permits.

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48. Charles Benjamin (attorney, Kansas Sierra Club), in interview, October 2006.

49. Kathy Mulder (biologist, Environmental Protection Agency), in interview, November 2006.



“We’ve never cited dredging as something to emphasize as an activity that reintroduces pollutants to the river,” said Tom Stiles, chief of watershed planning at the KDHE.<sup>50</sup>

Don Carlson, program chief for the KDHE’s Bureau of Water, said that even though the bureau responded to complaints of misconduct, he does not remember a case where dredgers have done anything illegal from a wastewater standpoint.<sup>51</sup>

Mining for sand on land could also be explored. Rex Buchanan, associate director of the Kansas Geological Survey, said that this alternative to river dredging was not a good solution.

“There might be some impacts associated with dredging on the river, but they’re not necessarily as big as some sides in this argument claim,” Buchanan said. “The alternatives in a lot of cases have just as severe or more severe impacts.”<sup>52</sup>

This raises questions as to whether sand mining operations have damaged the environment.

Concerning recommendations, I have advocated through the voices of scientists the need for more research on how dredging has impacted the river since

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50. Tom Stiles, (chief of watershed planning, Kansas Department of Health and Environment), in interview, November 2006.

51. Don Carlson (program chief for Bureau of Water, Kansas Department of Health and Environment), in interview, November 2006.

52. Rex Buchanan (associate director, Kansas Geological Survey), in interview, November 2006.

the corps adopted its 1990 regulatory plan. My article also shows that dredging is, in fact, a significant contributor to a serious problem facing the state of Kansas. It will appear in a publication that contains very few articles on the subject.

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## Appendix A

### Possible sources:

#### Biologists and scientists

Name	Title	Organization
Paul Liechti	Assistant director	Kansas Biological Survey
Donald Huggins	Senior Scientist and director	Kansas Biological Survey
Bob Angelo	Scientist	Kansas Department of Health and Environment
Leonard Ferrington	Director of water quality and fresh water ecology	Kansas Biological Survey.
Roger Boyd	Scientist	
Cynthia Annette	Scientist	
Jon Eggen		
David Edds	Assistant professor of biological sciences	Emporia State University

#### Dredgers and dredging, glass and construction companies

Dave Penny	president and chief executive	Kaw Sand Co.
Jack Carson	President	Victory Sand & Gravel (Builders Sand in Kansas)



		City, Kan.)
		Owens Corning Glass Co.
Bill Penny	Owner	Penny's Concrete
Steve Glass	President	LRM Industries (Lawrence concrete and asphalt company.)

#### **Environmentalists and canoeists**

Ralph Newell	Owner and operator	Lawrence KOA Campground and the Kansas River Canoe Co
Charles Benjamin	Attorney	Kansas chapter of the Sierra Club
Lance Burr	Vice president	Friends of the Kaw
Robert F. Kennedy Jr.	President	Water Keeper Alliance
Mike Calwell	President	Kansas Canoe Assn.
Laura Calwell	Kansas River keeper	Friends of the Kaw
Mike Kruger	Member	State Water Improvement Monitors
		Kansas Natural Resource Council

### State and federal government agencies and committees

Kansas Department of Health and Environment		
Legislative Division of Post Audit		
Senate Energy and Natural Resources Committee		
Department of Water Resources		

### Government officials

Robert Smith	Ecologist	Army Corps of Engineers
Joshua Marx	Special projects manager	Army Corps of Engineers
Mike Hayden	Director	Kansas Wildlife and Parks
Joe Harkins	Director	Kansas Water Office
Greg Wurst	Natural resources manager	Army Corps of Engineers
Sheila Stogsdill	Assistant director of planning	Lawrence-Douglas County Planning Office
Cathy Tucker Vogel		Kansas Water Office
Karl Mueldner		Kansas Department of Health

		and Environment
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### Interest groups

Kansas Aggregate Producers' Assn.
Kansas Cement Council
Kansas Ready Mixed Concrete Assn.

### Legislators

Tom Sloan	Republican representative	Lawrence
David Corbin	Republican senator	Towanda
Laura McClure	Democrat	Osborne

### Lobbyists

Edward Moses	Dredging lobbyist	Topeka
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## Appendix B

*The following is a pitch letter I wrote for a news editor at the Capital-Journal:*

Steve Lynn Story idea: dredging in the Kansas River and its effects on Kansans

I'm a journalism master's student in my fifth semester at the University of Kansas at Lawrence, and I would like to publish my master's project in the Topeka Capital-Journal.

Commercial dredging in the Kansas River has received little attention in the Capital-Journal's pages relative to its importance, as it affects Kansans on an economic and environmental level.

Dredgers have been removing millions of tons of sand from the Kansas River for decades. Since the early 1990s, environmentalists have contended that dredging companies destroy riverbanks and increase water pollution. Biologists and the Army Corps of Engineers say the state won't fund a full-scale river study to ascertain whether dredging is causing the harm. The Kansas Legislature has defeated several bills supporting tighter regulation on dredging. The people of Kansas rely on the sand, which is used in the construction of roads, buildings and glass. Kansans use the river for recreation.

I first read about dredging in the Kaw in the Lawrence Journal-World in 2004, and I began my research last year. I have pored through hundreds of documents, from newspaper articles to scientific studies, and have interviewed several sources.

Of the region's major dailies, the Topeka Capital-Journal has published the fewest stories on the problem, the Lawrence Journal-World the most. Yet like other dailies, the Lawrence newspaper consistently lacks interviews with biologists, dredgers, legislators and property owners. The articles generally focus on environmentalists' arguments and cover areas in or near Lawrence.

By this November, I plan to write a 1,500-word story accompanied by a sidebar and photos. I will focus on the stretch of the river running through Shawnee County or Topeka, or both. I have yet to do the bulk of the reporting, but I have found much unreported news through research.

I worked the police beat for the University Daily Kansan fall 2005. I have written everything from police blotter to an in-depth profile on Dolph Simons Jr. I understand that an editor may want to meet me and review my clips before making a decision. You can reach me on my cell phone at 785-840-5777 or via e-mail at [steve-o@ku.edu](mailto:steve-o@ku.edu).

Steve Lynn