

6-4-07

Dear Dr. Stallworth,

We would like to submit the following written comments and the attached information for the SAB's consideration; and we would like to make a presentation at the June 13th meeting at or near 1 pm TBA. We understand that the presentation time may be limited to 5 min.

To those interested in the hypoxia issue:

There is a debate occurring in Missouri. At the behest of the Fish and Wildlife Service, the Army Corp of Engineers are digging or plan to dig chutes on islands and peninsulas on the Missouri river.

As an example, there is what is known as the Jameson Island project. The Corp is digging a 1.85 mile chute through the land portion of an oxbow in the river. They hope that this will provide shallow water habitat for the pallid sturgeon. The problem arises that they want to, and have until recently, dumped the soil into the river. This is rich alluvial soil that is nutrient rich. This project involves "displacing" 5.4 million tons of soil into the river. The surface area of the chute is 67 acres it will be dug to a depth of 25 ft. The walkley black organic matter on this soil to a depth of 12 ft is 1.2 to 1.7%, the total P expressed as P2O5 is over 900 ppm, the TKN is over 600 ppm.

This calculates up to 100 million lbs of carbon, 10 million pounds, each, of total phosphorus and total nitrogen.

The Clean Water Commission thinks that the Corp should do something other than dump the soil into the river.

The Corp says that these are insignificant amounts of nutrients, and the sediment may be good for the river. The Fish and Wildlife Service says that there has been a paradigm shift and sediment should be allowed into the river and the nutrients are not a problem.

This is one of 22 planned projects like this. Apparently, from what the Corp said, they have been doing projects like this for several years and they really cannot understand why there is any controversy about this. As part of the agricultural community that is working very hard to have wise use of nutrients and keep the soil out of the water, this attitude is bewildering.

The Fish and Wildlife Service also says that the Biological Opinion dictates these projects and this procedure. That really is not true. The habit mitigation is necessary, but the sloppy construction technique is not. While the sediment load rate is not as high as it was 200 years ago there is no evidence that the lack of seditment is impacting the habitat of the pallid sturgeon. The FWS cannot say what amount of suspended solids is necessary for the pallid sturgeon.

From your perspective as a member of the Hypoxia SAB, is nutrient rich soil in the river good thing or bad thing?

I think that the scientific advisory board's opinion on the wisdom of this, from the hypoxia standpoint, would be interesting to the Missouri DNR, The Missouri Clean Water Commission and the Corp of Engineers.

I think that consideration of the sources of nutrients in the Gulf of Mexico is incomplete without calculations including these types of construction practices.

Consideration must be given to the perception that the Federal Agencies are not sincere about their efforts to reduce water pollution and preserve soil if they conduct practices such as dumping soil directly into the river, and or constructing un-lined chutes with the intention of eroding soil into the river.

Attached are a notice regarding a meeting held in May on this subject by the Clean Water Commission and describes the issue; and a pdf file that includes pictures and chemical and physical analysis of a benchmark at the Jameson Island Site.

Bob and Kristin Perry
Bowling Green MO

The Corp is Dumping Huge Amounts of Farm Soil into the Missouri River CWC Meeting will discuss this on May 16



The Army Corp of Engineers is doing a series of 22 projects in Missouri to create habitat for the pallid sturgeon in the Missouri River. As a part of those projects, they are DUMPING HUGE QUANTITIES of soil into the Missouri River by digging huge ditches through nearby farmland. This is not dredging. They are digging through farmland that they have purchased along the river and dumping the soil into the river.

At one of these projects, Jameson Island near Arrow Rock, they are dumping 4.5 million cubic yards of soil (5.4 million tons) directly into the river. That project is 300 feet wide, more than 9 feet deep and 1.85 miles long. If you put that in terms of 2 tons of soil per acres runoff, that would be 2.7 million acres (which is more than the total of 2.63

million acres of corn harvested in the entire state of Missouri last year).

Calculating it in terms of nutrients, that is loading the river with 11.1 million pounds of nitrogen, 9.3 million pounds of phosphorus, and 100 million pounds of carbon. That is the same amount of fertilizer that you would have if you dumped 795 semi-trailers trucks (holding 46,000 pounds each) !!!! AND THAT IS JUST ONE OF 22 Projects. The cost of all the projects is 54 million this year and 86 million next year.

When fingers are pointed at agriculture for hypoxia in the Gulf, I'd like the Corp to admit they are contributing a huge part of the pollution. The USGS Survey for Missouri River Valley Sediment and Nutrients lists agricultural fertilizer as the top cause of nutrient loading. The Corp dumping needs to be listed as one of the leading causes. And doesn't this all sound counter productive to all our efforts to stop erosion on farm ground??? Why have CREP, CRP, CSP and EQIP ????

I serve on the Missouri Clean Water Commission in the seat to represent knowledge of agriculture. I am very concerned about what this dumping will do to the reputation of agriculture. If the truth be told, apparently some in DNR and the Corp think it is okay for the Corp to do this dumping because they believe the sediment is needed in the Missouri River. You can't dump soil without dumping the nutrients in the soil. If that is scientifically defensible, then everyone should be allowed to dump. Why do they make everyone else have a permit and clean the sediment OUT of the water? Why does the Corp get to dump and no one else?

On April 23 at the Clean Water Commission meeting, by unanimous vote, the Commission instructed our legal staff to **“Notify the US Corp of Engineers to stop dumping soil into the Missouri River within one week of receipt of our notice. If they fail to do so voluntarily, we instruct our legal staff to seek a temporary restraining order and injunction to stop them from dumping soil until the Corp proves they are not adversely affecting the quality of water in Missouri and further to have the Corp demonstrate why they do not have to abide by the same regulations affecting other land owners, municipalities, and industries in Missouri.”**

Friday, April 27, the Corp issued a press release that they will cease dumping the soil until it is tested.

The Clean Water Commission has invited the Corp to explain this dumping at the CWC meeting on May 16th at the Lewis and Clark State Office Building, 1101 Riverside Drive in Jefferson City. The meeting will start at 9 am.

I encourage you to come.

Kristin Perry, Vice-Chair
Missouri Clean Water Commission



PERRY AGRICULTURAL LABORATORY, INC.

P.O. BOX 418, HIGHWAY 54 EAST
BOWLING GREEN, MO 63334
573-324-2931

SUBMITTED FOR:
JAMESON ISLAND

SEND TO:
P.A.L., Inc.
P.O. BOX 418

REPORT NUMBER	B0078	DATE	5/1/2007
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BOWLING GREEN, Missouri 63334

SOIL REPORT

RATING

VERY LOW	LOW	MODERATE	DESIRED	VERY HIGH	EXCESS
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Sample:	SPOILS	pH	7.20	[REDACTED]	
ACRES:		PHOSPHORUS (P)	44 lbs/a	[REDACTED]	
CEC:	17.43 me	SULFUR (SO4-S)	42 lbs/a	[REDACTED]	
SOIL TEXTURE:	Silt Loam	CALCIUM (Ca)	5633 lbs/a	[REDACTED]	
ORGANIC MATTER:	1.60 %	MAGNESIUM (Mg)	681 lbs/a	[REDACTED]	
		POTASSIUM (K)	394 lbs/a	[REDACTED]	
Neut. A:	0.00	SODIUM (Na)	lbs/a		
		BORON (B)	ppm		
		IRON (Fe)	ppm		
		MANGANESE (Mn)	ppm		
		COPPER (Cu)	ppm		
		ZINC (Zn)	ppm		
			ppm		

BASE SATURATION PERCENT	
CALCIUM:	80.82
MAGNESIUM:	16.28
POTASSIUM:	2.90

SOIL FERTILITY RECOMMENDATIONS

CROPPING OPTIONS	YIELD GOAL	SUGGESTED TREATMENT							POUNDS / ACRE		
		NITROGEN N	PHOSPHATE P2O5	POTASH K2O	SULFUR S	BORON B	IRON Fe	MANGANESE Mn	COPPER Cu	ZINC Zn	
CORN BU/AC	125	136	57	20	0						
CORN BU/AC	150	183	68	20	0						
DATE/AMOUNT APPLIED											

LIME RECOMMENDATIONS:

APPLIED:

COMMENTS:



PERRY AGRICULTURAL LABORATORY, INC.

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P.A.L., Inc.
P.O. BOX 418

REPORT NUMBER	B0079	DATE	5/1/2007
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BOWLING GREEN, Missouri 63334

SOIL REPORT

RATING

VERY LOW	LOW	MODERATE	DESIRED	VERY HIGH	EXCESS
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Sample:	2BMARK 0-12	pH	7.10	[REDACTED]	
ACRES:		PHOSPHORUS (P)	89 lbs/a	[REDACTED]	
CEC:	23.81 me	SULFUR (SO4-S)	12 lbs/a	[REDACTED]	
SOIL TEXTURE:	Clay Loam	CALCIUM (Ca)	6923 lbs/a	[REDACTED]	
ORGANIC MATTER:	1.90 %	MAGNESIUM (Mg)	1286 lbs/a	[REDACTED]	
		POTASSIUM (K)	895 lbs/a	[REDACTED]	
Neut. A:	0.00	SODIUM (Na)	lbs/a		
		BORON (B)	ppm		
		IRON (Fe)	ppm		
		MANGANESE (Mn)	ppm		
		COPPER (Cu)	ppm		
		ZINC (Zn)	ppm		
			ppm		

BASE SATURATION PERCENT	
CALCIUM:	72.68
MAGNESIUM:	22.50
POTASSIUM:	4.82

SOIL FERTILITY RECOMMENDATIONS

CROPPING OPTIONS	YIELD GOAL	SUGGESTED TREATMENT							POUNDS / ACRE		
		NITROGEN N	PHOSPHATE P2O5	POTASH K2O	SULFUR S	BORON B	IRON Fe	MANGANESE Mn	COPPER Cu	ZINC Zn	
CORN BU/AC	125	146	0	0	10						
CORN BU/AC	150	193	0	0	10						
DATE/AMOUNT APPLIED											

LIME RECOMMENDATIONS:
APPLIED:

COMMENTS:



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REPORT NUMBER	B0080	DATE	5/1/2007
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BOWLING GREEN, Missouri 63334

SOIL REPORT

RATING

VERY LOW	LOW	MODERATE	DESIRED	VERY HIGH	EXCESS
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Sample:	2BMARK 12-24	pH	7.10
ACRES:		PHOSPHORUS (P)	76 lbs/a
CEC:	21.48 me	SULFUR (SO4-S)	18 lbs/a
SOIL TEXTURE:	Clay Loam	CALCIUM (Ca)	6873 lbs/a
ORGANIC MATTER:	1.50 %	MAGNESIUM (Mg)	1072 lbs/a
		POTASSIUM (K)	646 lbs/a
Neut. A:	0.00	SODIUM (Na)	lbs/a
		BORON (B)	ppm
		IRON (Fe)	ppm
		MANGANESE (Mn)	ppm
		COPPER (Cu)	ppm
		ZINC (Zn)	ppm
			ppm



BASE SATURATION PERCENT	
CALCIUM:	80.00
MAGNESIUM:	20.80
POTASSIUM:	3.86

SOIL FERTILITY RECOMMENDATIONS

CROPPING OPTIONS	YIELD GOAL	SUGGESTED TREATMENT										POUNDS / ACRE	
		NITROGEN N	PHOSPHATE P2O5	POTASH K2O	SULFUR S	BORON B	IRON Fe	MANGANESE Mn	COPPER Cu	ZINC Zn			
CORN BU/AC	125	146	0	0	5								
CORN BU/AC	150	193	0	0	5								
DATE/AMOUNT APPLIED													

LIME RECOMMENDATIONS:

APPLIED:

COMMENTS:



PERRY AGRICULTURAL LABORATORY, INC.

P.O. BOX 418, HIGHWAY 54 EAST
BOWLING GREEN, MO 63334
573-324-2931

SUBMITTED FOR:
JAMESON ISLAND

SEND TO:
P.A.L., Inc.
P.O. BOX 418

REPORT NUMBER	B0081	DATE	5/1/2007
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BOWLING GREEN, Missouri 63334

SOIL REPORT

RATING

VERY LOW	LOW	MODERATE	DESIRED	VERY HIGH	EXCESS
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Sample:	2BMARK 24-36	pH	6.90
ACRES:		PHOSPHORUS (P)	70 lbs/a
CEC:	21.56 me	SULFUR (SO4-S)	9 lbs/a
SOIL TEXTURE:	Clay Loam	CALCIUM (Ca)	6300 lbs/a
ORGANIC MATTER:	1.40 %	MAGNESIUM (Mg)	1230 lbs/a
		POTASSIUM (K)	535 lbs/a
Neut. A:	0.00	SODIUM (Na)	lbs/a
		BORON (B)	ppm
		IRON (Fe)	ppm
		MANGANESE (Mn)	ppm
		COPPER (Cu)	ppm
		ZINC (Zn)	ppm
			ppm



BASE SATURATION PERCENT	
CALCIUM:	73.05
MAGNESIUM:	23.77
POTASSIUM:	3.18

SOIL FERTILITY RECOMMENDATIONS

CROPPING OPTIONS	YIELD GOAL	SUGGESTED TREATMENT POUNDS / ACRE									
		NITROGEN N	PHOSPHATE P2O5	POTASH K2O	SULFUR S	BORON B	IRON Fe	MANGANESE Mn	COPPER Cu	ZINC Zn	
CORN BU/AC	125	146	0	0	10						
CORN BU/AC	150	193	0	0	10						
DATE/AMOUNT APPLIED											

LIME RECOMMENDATIONS:
APPLIED:

COMMENTS:



PERRY AGRICULTURAL LABORATORY, INC.

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BOWLING GREEN, MO 63334
573-324-2931

SUBMITTED FOR:
JAMESON ISLAND

SEND TO:
P.A.L., Inc.
P.O. BOX 418

REPORT NUMBER B0082 DATE 5/1/2007

BOWLING GREEN, Missouri 63334

SOIL REPORT

RATING

VERY LOW LOW MODERATE DESIRED VERY HIGH EXCESS

Sample:	2BMARK 36-48	pH	7.10
ACRES:		PHOSPHORUS (P)	25 lbs/a
CEC:	15.01 me	SULFUR (SO4-S)	18 lbs/a
SOIL TEXTURE:	Silt Loam	CALCIUM (Ca)	4863 lbs/a
ORGANIC MATTER:	0.80 %	MAGNESIUM (Mg)	591 lbs/a
		POTASSIUM (K)	308 lbs/a
Neut. A:	0.00	SODIUM (Na)	lbs/a
		BORON (B)	ppm
		IRON (Fe)	ppm
		MANGANESE (Mn)	ppm
		COPPER (Cu)	ppm
		ZINC (Zn)	ppm
			ppm



BASE SATURATION PERCENT	
CALCIUM:	80.97
MAGNESIUM:	16.40
POTASSIUM:	2.63

SOIL FERTILITY RECOMMENDATIONS

CROPPING OPTIONS	YIELD GOAL	SUGGESTED TREATMENT										POUNDS / ACRE			
		NITROGEN N	PHOSPHATE P2O5	POTASH K2O	SULFUR S	BORON B	IRON Fe	MANGANESE Mn	COPPER Cu	ZINC Zn					
CORN	BU/AC	125	136	79	34	5									
CORN	BU/AC	150	183	90	41	5									
DATE/AMOUNT APPLIED															

LIME RECOMMENDATIONS:

APPLIED:

COMMENTS:



PERRY AGRICULTURAL LABORATORY, INC.

P.O. BOX 418, HIGHWAY 54 EAST
BOWLING GREEN, MO 63334
573-324-2931

SUBMITTED FOR:
JAMESON ISLAND

SEND TO:
P.A.L., Inc.
P.O. BOX 418

REPORT NUMBER	B0083	DATE	5/1/2007
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BOWLING GREEN, Missouri 63334

SOIL REPORT

RATING

VERY LOW	LOW	MODERATE	DESIRED	VERY HIGH	EXCESS
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Sample:	2BMARK 48-60	pH	7.10	[Bar chart: Moderate]									
ACRES:		PHOSPHORUS (P)	25 lbs/a	[Bar chart: Low]									
CEC:	21.24 me	SULFUR (SO4-S)	33 lbs/a	[Bar chart: Moderate]									
SOIL TEXTURE:	Clay Loam	CALCIUM (Ca)	6848 lbs/a	[Bar chart: Excess]									
ORGANIC MATTER:	1.30 %	MAGNESIUM (Mg)	828 lbs/a	[Bar chart: Moderate]									
		POTASSIUM (K)	522 lbs/a	[Bar chart: Moderate]									
Neut. A:	0.00	SODIUM (Na)	lbs/a										
<table border="1"> <tr> <th colspan="2">BASE SATURATION PERCENT</th> </tr> <tr> <td>CALCIUM:</td> <td>80.61</td> </tr> <tr> <td>MAGNESIUM:</td> <td>16.24</td> </tr> <tr> <td>POTASSIUM:</td> <td>3.15</td> </tr> </table>		BASE SATURATION PERCENT		CALCIUM:	80.61	MAGNESIUM:	16.24	POTASSIUM:	3.15	BORON (B)	ppm		
		BASE SATURATION PERCENT											
		CALCIUM:	80.61										
		MAGNESIUM:	16.24										
		POTASSIUM:	3.15										
		IRON (Fe)	ppm										
MANGANESE (Mn)	ppm												
COPPER (Cu)	ppm												
ZINC (Zn)	ppm												
			ppm										

SOIL FERTILITY RECOMMENDATIONS

CROPPING OPTIONS	YIELD GOAL	SUGGESTED TREATMENT							POUNDS / ACRE		
		NITROGEN N	PHOSPHATE P2O5	POTASH K2O	SULFUR S	BORON B	IRON Fe	MANGANESE Mn	COPPER Cu	ZINC Zn	
CORN BU/AC	125	146	79	0	0						
CORN BU/AC	150	193	90	0	0						
DATE/AMOUNT APPLIED											

LIME RECOMMENDATIONS:

COMMENTS:

APPLIED:

MAY 24, 2007

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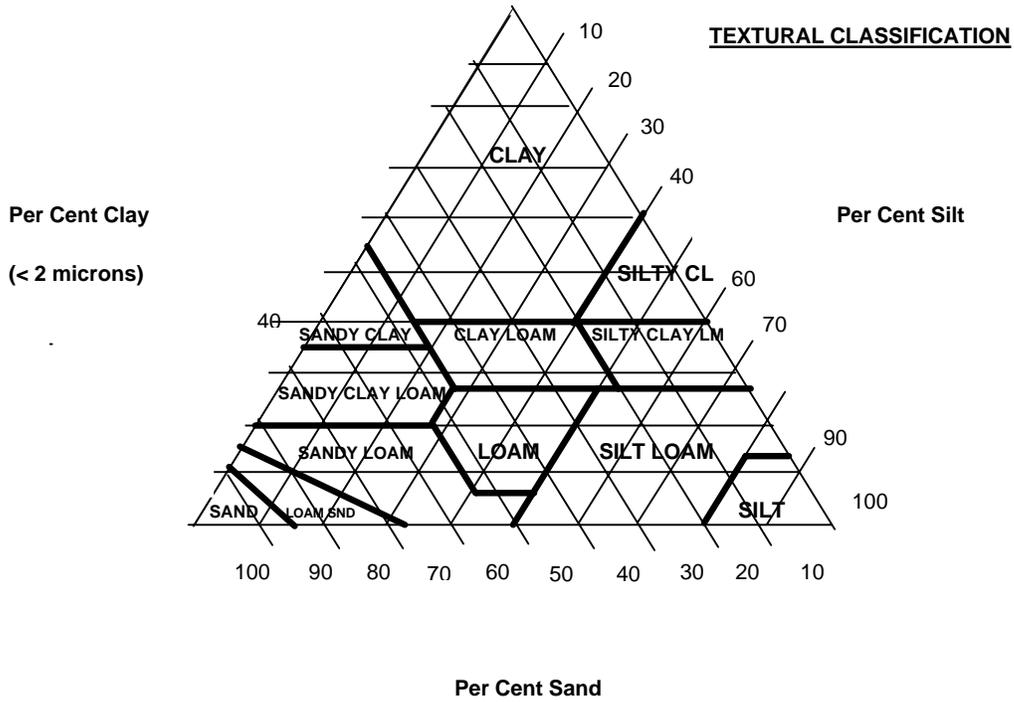
SOIL TYPE

JAMESON ISLAND

SUBMITTED FOR:

SAMPLE NAME	% SAND	% SILT	% CLAY
2ND BENCHMARK 0-12	12.3	36.6	51.1
2ND BENCHMARK 12-24	17.3	39.1	43.6
2ND BENCHMARK 24-36	14.8	39.1	46.1
2ND BENCHMARK 36-48	27.3	46.6	26.1
2ND BENCHMARK 48-60	4.8	49.1	46.1
SPOILS	22.3	46.6	31.1

Soil Texture Triangle



Name of Fraction	Size range (effective diameter) mm	Visible by
Clay	less than 0.0002	electron microscope
Silt	0.002-0.02	light microscope
Fine sand	0.02-0.2	hand lens/eye
Coarse sand	0.2-2.0	eye
Gravel	more than 2.0	eye

Texture grade	% Clay
Heavy clay	50 or more
Light clay	40-50
Silty clay	40-60
Sandy clay	35-45
Clay loam, silty clay loam	25-40
Silty loam	0-25
Sandy clay loam	20-30
Loam	10-25
Sandy loam	10-15
Sand	less than 5



APRIL 30, 2007

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SPECIAL REPORT

JAMESON ISLAND

RESULTS

CLIENT	SAMPLE	TOTAL PHOSPHORUS		NITROGEN (TKN) MG/KG	
		ppm	AS: ppm P ₂ O ₅		
1	JAMESON ISLAND	2B MARK 0-12	625	1431	1275
2	JAMESON ISLAND	2B MARK 12-24	625	1431	966
3	JAMESON ISLAND	2B MARK 24-36	575	1317	909
4	JAMESON ISLAND	2B MARK 36-48	450	1031	511
5	JAMESON ISLAND	2B MARK 48-60	550	1260	822
6	JAMESON ISLAND	SPOILS	500	1145	711
7					
8					
9					
10					

June 3, 2007

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SPECIAL REPORT

This is a typical unstirred hog lagoon used for irrigating effluent on to a field and characteristic of most of the lagoon spills. Note that the total N and P is less than the levels in the soil from Jameson island.

SAMPLE: <i>LAGOON</i>	AS IS	LBS/1000 GAL	LBS/ACRE-INCH
LAB#	429		
%			
MOISTURE			
SOLIDS			
VOLATILE SOLIDS			
ASH			
pH			
mg/kg			
TKN	598	4.98	137
AMMONIA	479	3.99	110
NITRATE			
ORGANIC N	119	0.99	27
P.A.N. (surface)	329	2.74	76
DISSOLVED P			
AS P			
PHOSPHORUS	60	0.50	14
MAGNESIUM			
%			
POTASSIUM			
AS K2O	0.084	6.98	193
CALCIUM			
SULFUR			
PHOSPHORUS			
AS P2O5	0.014	1.15	32
CARBON/NITROGEN			
FACTORS: mPAN = .35 NH3 VR = .6			
Second Year Release	21	0.18	5



Name	River Mile	Bank	Completion Year	Excavation Method	Material Placement Location	Land Owner	WRP?	Status	Constructed Bottom Width (ft)	Design Bottom Width (ft)	Excavation Quantity (cubic yards)	Length (miles)
Barney Bend	549	L	2008*	Land-based / dredging	Build sandbars in channel, In river	COE	no	In Design	85	200	450,000	1.6
Baltimore Bottom A	298	R	2008*	Land-based / dredging	Build sandbars in channel, In river	FWS	yes	In Design	100	200	790,000	2.4
Baltimore Bottom B&C	298	R	2007*	Land-based / dredging	Build sandbars in channel	FWS	yes	construction	70	100	640,000	1.8
Jameson Island	213	R	2007*	Land-based / dredging	In river	FWS	yes	construction	100	200	1,500,000	1.9
Rush Bottom	501	L	2007*	Dredging	In river	COE	no	construction	70	200	470,000	1.6
Tarkio River A	507	L	2007*	Land-based / dredging	In river	COE	no	construction	70	70	110,000	0.9
Tarkio River B	507	L	2007*	Land-based / dredging	In river	COE	no	construction	70	70	70,000	0.9
Tarkio River Mouth	507	L	2007*	Land-based / dredging	In river	COE	no	construction	70	70	40,000	0.9
Tadpole Island	179	R	2006	Land-based	Side-cast	COE	no	complete	75	200	800,000	1.8
Worthwine Island	458	L	2006	Land-based	Along levee, built sandbars in channel	MDC	no	complete	50	200	400,000	1.7
Lower Hamburg	552	L	2005	Land-based	Side-cast	COE	no	complete	50	200	300,000	2.5
Overton	187	R	2003	Land-based	Side-cast	COE	no	complete	50	200		1.6
Deroin Bend	518	L	2001	Dredging	In river	MDC	no	complete	70	200		3.3

*Projected date

22.9

Corp projects. Notice that the projects noted as completed were projects where the soil was side-cast and not dumped into the river.

2000-2001-2002-2003-2004-2005-2006-2007-2008-2009-2010-2011-2012-2013-2014-2015-2016-2017-2018-2019-2020-2021-2022-2023-2024-2025



