Project Implementation Plan SFY23-25

Middle Kansas River WRAPS

WRAPS Coordinator: Megan Rush

Grant Start: July 1, 2022

Grant End: December 31, 2025 Total Allocation: \$330,000

This WRAPS Implementation PIP will help accomplish the long-term goals established in Kansas' Nonpoint Source Management Plan Goals including:

- 1. No lake, river, stream or wetland has a violation of Kansas Surface Water Quality Standards due to nonpoint sources of pollutants and all designated uses are fully supported;
- 2. Kansas surface and ground water are protected from all nonpoint pollutant sources through the use of recommended water quality best management practices.
- 3. Reducing the levels of phosphorus, nitrogen, and sediment that adversely affect the water quality of Kansas lakes, rivers, streams and wetlands

	Year 1	Year 2	Year 3
Personnel/Fringe	\$36,400	\$36,800	\$37,300
Admin/Indirect	\$11,000	\$11,000	\$11,000
Travel/Supplies	\$6,850	\$6,850	\$6,850
Strategy Implementation/BMPs	\$55,750	\$55,350	\$54,850
Total:	\$110,000	\$110,000	\$110,000

Estimated Load Reductions			
Phosphorus	2,720 lbs.		
Nitrogen	4,746 lbs.		
Sediment	1,320 tons		

Stratogy and Coals	Funding	Load Reductions		
Strategy and Goals	Funding	Phosphorus (lbs)	Nitrogen (lbs)	Sediment (tons)
Reduce livestock related water quality impairments in Rock Creek Remove cattle from impacting water quality in Rock Creek by December 31, 2025. The goal is 50 cow/calf pairs per year for a total of 150 pairs in three years, by establishing the following BMPs: Off-Stream Waterers Relocate Feeding Areas Grazed Cover Crops Riparian Buffers	\$82,973	780	1,500	N/A

Reduce livestock related water quality impairments in Vermillion Creek The goal will be to complete one to two livestock projects, or 50 cow/calf pairs, by year three. Funding for projects will be left in year one for the chance of a project to happen. These goals will be met by establishing the following BMPs: Off-stream waterers Relocate feeding areas Grazed cover crops Buffers	\$14,294	290	546	N/A
Reduce sediment related water quality impairments in Soldier Creek Riparian Buffers 10 acres/year Cover Crops and Soil Health Practices 80 acres/year	\$68,684	1,650	2,700	1,320

Project Information

Project Title

Middle Kansas River WRAPS Implementation SFY23-25

This WRAPS Implementation PIP will help accomplish the long-term goals established in Kansas' Nonpoint Source Management Plan including:

- 1. No lake, river, stream or wetland has a violation of Kansas Surface Water Quality Standards due to nonpoint sources of pollutants and all designated uses are fully supported;
- 2. Kansas surface and ground water are protected from all nonpoint pollutant sources through the use of recommended water quality best management practices;
- 3. Kansas Water Plan objectives are achieved by:
 - a. Reducing the levels of pathogens, biochemical oxygen demand, dissolved solids, metals, nutrients, pesticides and sediment that adversely affect the water quality of Kansas lakes, rivers, streams and wetlands;
 - b. Reducing the levels of dissolved solids, metals, nitrates and volatile organic chemicals that adversely affect the quality of Kansas ground water;
 - c. Maintaining water quality conditions for unimpaired waters at a level equal to or better than existing conditions

Contact Information

Enter Sponsoring Organization Information

Sponsoring Organization Name

Kansas Alliance for Wetlands and Streams (KAWS)

Street Address

PO Box 142

City, State, Zip

Holton, Kansas 66436

Sponsor Tax Payer ID (FEIN)

04-378386

Signature Authority Name

Aaron Deters

Signature Authority Email

Aaron.deters@kaws.org

Signature Authority Phone Number

785-738-8778

Enter project contact information Name Megan Rush **Street Address** PO Box 142 City, State, Zip Holton, KS 66436 **Phone Number** 913-204-0179 **Email** Megan.rush@kaws.org **Project Overview** List the HUC12s that are included in this project. 102701020101, 102701020102, 102701020103, 102701020104, 102701020105, 102701020205, 102701020206, 102701020207, 102701020209, 102701020801, 102701020802, 102701020803 Will a public water supply system be impacted by the project? ⊠Yes \square No

If yes, please enter the impacted public supplies.

Nemaha County RWD No. 3, Pottawatomie County RWD No. 3, Onaga City of, Pottawatomie County RWD No. 1 & 2, Westmoreland City of, Pottawatomie County RWD No. 4, Emmett City of, Saint George City of, Wamego City of, Belvue City of, Saint Mary's City of, Wabaunsee County RWD No. 2, Shawnee County Cons. RWD No. 2, McFarland City of, Alma City of, Paxico City of, Rossville City of, Silver Lake City of, Shawnee County Cons. RWD No. 4, Jefferson County RWD No. 1, Jefferson County RWD No. 15, Maple Hill City of, Topeka City of, Lecompton City of, Alta Vista City of, Douglas County RWD No. 3, Konza valley Water Benefit District, Ogden City of, Randolph City of, Riley City of, University Park Water District,

Describe the project history.

The Middle Kansas WRAPS project began when the Kansas Alliance for Wetlands and Streams (KAWS) was awarded a grant from the KDHE in 2006. A Coordinator for the Upper & Middle Kansas WRAPS project was hired in August of 2006 to guide the development of the WRAPS planning effort in the basin, and to work with stakeholders. Individuals with an interest in water resources in the Middle Kansas watershed met and began the process of identifying water-related issues in the basin in September, 2006. A diverse group of stakeholders became involved in the Middle Kansas WRAPS

planning process. In consultation with the KDHE – Watershed Management Section and the KDHE – TMDL Planning Section, the following stream TMDLs were agreed to be the focus of this plan:

- 1. Rock Creek Bacteria, Status: Active, targeted implementation.
- 2. Upper Soldier Creek Biology, Status: Active, targeted implementation.
- 3. Upper Vermillion Creek Bacteria

Active watershed coordination has continued in the area since. In the last grant cycle (SFY20-22) many successful projects were implemented. Middle Kansas River completed a total of 31 projects. Of those, four were livestock related, 24 were cover crop projects, and three riparian buffer projects. Outreach and education efforts as well as strong partnership have been a substantial part of the success of the Middle Kansas River watershed.

Enter the project start date (MM/DD/YYYY)

07/01/2022

Enter the project end date (MM/DD/YYYY)

12/31/2025

Describe your Stakeholder Leadership Team (SLT),

A diverse group of stakeholders became involved in the Middle Kansas WRAPS planning process. Farmers, landowners, representatives of natural resource agencies and organizations, tribal, city and county government representatives, public water suppliers and others participated. The Middle Kansas River WRAPS Stakeholder Leadership Team (SLT) evolved from a core group of meeting attendees. Stakeholders discussed methods for devising a leadership team that would encompass the broad constituent base of the watershed, given the rural and urban components. The SLT serves as a board to make decisions and provide guidance to the WRAPS Coordinator. They also have input on the priorities and provide direction to the project. The SLT is comprised of eleven members that meet once a quarter, four times a year. There are three local landowners who serve as unofficial SLT members that help guide the Coordinator in BMPs and education efforts in the watershed.

SLT Members: List the name, role, affiliation, and email for each SLT member.

As of February 2022, the following individuals are members of the SLT:

Dennis Shwant, Pottawatomie Conservation District, Rock Creek Watershed, and Pottawatomie County Landowner

Douglas Helmke, Kansas Rural Water Association

Chalee Braun, Shawnee County Conservation District Manager

Mary Howell, Service Provider

Mikayal Kerron, Prairie Band Potawatomi Nation

Verna Potts, Prairie Band Potawatomi Nation

Francis Kelsey, Shawnee County Supervisor and Shawnee County Landowner

Brian Boeckman, Jackson County Conservation District Manager

Molly Schmidt, Pottawatomie County Conservation District Manager

Dennis Mulroy, Nemaha County Landowner

Bill Riphahn, Shawnee County Commissioner

 There are three local landowners who serve as unofficial SLT members that help guide the Coordinator in BMPs

Project Scope

Describe the TMDLs and/or water quality impairments directly addressed in this project.

Approximately 76% of the impaired stream/river segments within the Middle Kansas River WRAPS are impaired by bacteria, 9% by excess nutrients, 3% by ammonia (NH3), and 1% by sediment. Within this project scope, Middle Kansas River WRAPS will address:

- Soldier Creek biology impairment caused by sedimentation
- Rock Creek E. Coli
- Vermillion Creek E. Coli

The remaining TMDLs will be impacted positively by BMP implementation targeted to reduce livestock bacteria and sedimentation from entering the water.

Please describe how this watershed has been assessed. This will include aerial assessments, soil and water tests, survey data, land use cover, and any other important information.

Water quality in the Middle Kansas River Watershed has many monitored, permanent and rotational, KDHE sampling sites. If analysis determines that any one pollutant exceeds acceptable limits, the water segment then becomes "impaired" by that pollutant and is reported as a 303d-listed impairment. The affected water segment is listed as a Total Maximum Daily Load (TMDL), if it is in dire need of pollutant reduction, then it is considered "high priority." To be issued a TMDL, water samples taken during KDHE monitoring programs indicate that water quality standards have not been met. This in turn means that designated uses have not been met. Within the 9-element plan, we are able to assess land use near specific streams, and by using aerial assessments, we are able to better target our BMPs to the most likely producers contributing to the TMDL.

Budget

Personnel			
Budget Line	Grant Request	Match	Total
Year 1	\$32,500	\$750	\$33,250
Year 2	\$32,900	\$750	\$33,650
Year 3	\$33,400	\$750	\$34,150
Total Requested	\$98,800	\$2,250	\$101,050
Description	Grant includes salary for 0.5 FTE for grant coordination and associated payroll taxes. The IRS value of the Coordinator's home office will be reported as match each calendar year (50% of \$1,500/yr x 3yrs = \$2,250).		

Fringe					
Budget Line	Grant Request	Match	Total		
Year 1	\$3,900	\$0	\$3,900		
Year 2	\$3,900	\$0	\$3,900		
Year 3	\$3,900	\$0	\$3,900		
Total Requested	\$11,700	\$0	\$11,700		
Description	Grant included employe	Grant included employee benefits such as a healthcare stipend and			
	cellphone allowance for	cellphone allowance for a 0.5 FTE. Employer contribution towards the			
	0.5FTE's retirement plan	0.5FTE's retirement plan will be captured as match.			

Travel			
Budget Line	Grant Request	Match	Total
Year 1	\$6,000	\$1,050	\$7,050
Year 2	\$6,000	\$1,050	\$7,050
Year 3	\$6,000	\$1,050	\$7,050
Total Requested	\$18,000	\$3,150	\$21,150
Description	Match portion will come	, meetings, workshops, lan from mileage (federal mile sign-in sheet at each meet ,600).	age rate) of SLT

Supplies				
Budget Line	Grant Request	Match	Total	
Year 1	\$850	\$0	\$850	
Year 2	\$850	\$0	\$850	
Year 3	\$850	\$0	\$850	
Total Requested	\$2,550	\$0	\$2,550	
Description	Needed supplies for office expenses, printing material, equipment, etc. Include monthly fees for hotspot and dedicated cell phone number for a combined expense of \$282/year.			

BMP/Strategy Funding			
Budget Line	Grant Request	Match	Total
Year 1	\$55,750	\$80,623	\$136,373
Year 2	\$55,350	\$80,623	\$135,973
Year 3	\$54,850	\$80,623	\$135,473
Total Requested	\$165,950	\$241,869	\$407,819
Description	includes \$5000/year for of SLT member attendance at Match also includes lando on-the-ground projects. Of Pottawatomie counties w	in the priority area. The reputreach and education effort 4, 3-hour meetings/year owner and partner in-kind County Conservation Districtly provide in-kind match conal funds valued at \$112,000 (cle.	orts. Match includes at \$25.43/hour. contributions towards cts in Jackson and ontributions from their

Contractual Services			
Budget Line	Grant Request	Match	Total
Year 1	\$0	\$0	\$0
Year 2	\$0	\$0	\$0
Year 3	\$0	\$0	\$0
Total Requested	\$0	\$0	\$0
Description		_	

Indirect			
Budget Line	Grant Request	Match	Total
Year 1	\$11,000	\$910	\$11,910
Year 2	\$11,000	\$910	\$11,910
Year 3	\$11,000	\$910	\$11,910
Total Requested	\$33,000	\$2,730	\$35,730
Description	funds will be used for KA\ 0.14 of the KAWS' Assista	ant total, minus the TSP al WS organizational overhea nt DIrector/WRAPS Coordiovide 20 hours as match at	d expenses as well as inator position. KAWS'

WRAPS Strategic Planning General Plan Implementation

Implementing years 12-14 of the approved Middle Kansas River WRAPS 9-Element Watershed Plan. The load reduction goals for implementation years 12 through 14 are not outlines for the following HUC12s that this grant will focus on: 102701020101, 102701020102, 102701020103, 102701020104, 102701020105, 102701020106, 102701020107, 102701020109. The Middle Kansas River 9-element Watershed Plan does outline load reductions for HUC12s 1027010120801, 1027010120802, 1027010120803, which amount to 4,264 pounds of nitrogen, 1,291 pounds of phosphorus, and 254 tons of sediment. The load reduction goals of the 2023 -2025 plan are 4,746 pounds of nitrogen, 2,720 pounds of phosphorus, and 1,320 tons of sediment. The below strategies will focus on one or more specific impairments identified in the 9-Element Watershed Plan. As this grant does not provide enough funding to fully implement the identified best management practices from the plan, the project coordinator will partner with various other natural resource programs to leverage resources for the implementation of such practices. These programs include but are not limited to county conservation districts, state cost share programs, Natural Resources Conservation Service (NRCS) programs, Kansas Dept. of Wildlife and Parks, Farm Service Agency, municipalities, and other nonprofit organizations.

Practices implemented beyond the below strategies will focus on the improvement of soil health, watershed hydrology, and the mitigation of impairments identified in the 9-Element Watershed Plan. These practices could include cover crop implementation, no till, conservation crop rotation, precision agriculture to apply nutrients by variable rate application, critical area seeding, conversion of cropland to permanent grass, buffer strips, alternative livestock watering systems, relocation of livestock feeding areas away from streams, and grazing management.

What are the resources that you will need for General Plan Implementation?

The financial resources needed for implementation are as outlined above and totaling \$165,950 for three years. Additional resources include the Extension Agents through Kansas State University, NRCS technical staff, Kansas Department of Wildlife & Park Wildlife Biologist, Farmer/Rancher one-on-one instructors, Conservation District Managers, Conservation District financial assistance programs, Environmental Quality Incentive Program (EQIP).

Strategy One

Provide a general summary of Strategy One

Strategy one: Reduce livestock related water quality impairments in Rock Creek

Implement BMPs within the priority area to improve water quality and prevent bacteria from entering the streams. The priority HUCs are: 102701020101, 102701020102, 102701020103, 102701020104, 102701020105

What are the goals for this strategy?

Remove cattle from impacting water quality in Rock Creek by December 31, 2025. The goal is 50 cow/calf pairs per year for a total of 150 pairs in three years, by establishing the following BMPs:

- Off-Stream Waterers
- Relocate Feeding Areas
- Grazed Cover Crops
- Riparian Buffers

General BMPs to be used as padding for specific projects or unforeseen needs related to agriculture practices impact on water quality.

This will reduce nitrogen by 500 pounds per year and phosphorus by 260 pounds per year and a total of 1500 pounds of nitrogen and 780 pounds of phosphorus in the three year grant cycle.

Tactics and action steps

Re-assess current "VIP" list

- **a.** Reassess Google Earth maps based off more current images to refresh "VIP" landowners we would want to work with by March 2023
- b. Share the list with partners to better network with the landowners by March 2023
- c. Ground truth landowners on the list if accessible by March 2023

Outreach and education

- a. Communications (direct mailer, flyers, update letters) sent out to landowners in spring 2023 highlighting projects from well-known landowners in the watershed.
- b. Run a story in the local newspaper about our program in the watershed in spring 2023.
- c. Host a workshop in fall/winter 2023-2025 at project sites
- d. Continue to support local workshops with a table, information, and speaking spot.
- e. Host small gathering informal talks with local landowners by HUCs in the spring/summer.
- f. Ask landowners with WRAPS funded projects to make introductions to surrounding landowners.
- g. Continue creating videos of projects and include landowners' testimonials.
- h. Continue to sponsor scholarships to interested landowners on topics of interest to our goal.

Key performance indicators for the tactics

	Year 1	Year 2	Year 3	Total
BMP Indicators				
Livestock	50 pair	50 pair	50 pair	150 pair
Cover Crops	80 acres	80 acres	80 acres	240 acres
Coordination Indicators				
Ground truth VIP sites	5	5	5	15
Outreach and Education Indicators				
Communication Letters	1	1	1	3
Newspaper ads	1	1	1	3
Workshop	1	1	1	3
Support local workshops	3	3	3	9
Small gatherings	1	1	1	3
Landowner Introductions	4	4	4	12
Project videos	2	2	2	6
Scholarship sponsor	5	5	5	15

What are the resources that you will need and use to get the tactics done?

Budget Needs - Strategy 1				
Summary	Yr 1	Yr 2	Yr 3	Total
Livestock – Rock Creek	\$15,000	\$13,000	\$12,000	\$40,000
Cover Crops	\$9,000	\$9,000	\$9,000	\$27,000
General BMP	\$2,875	\$2,675	\$2,925	\$8,475
Technical Service Provider	\$7,943	\$7,351	\$7,199	\$22,493
Outreach & Education	\$2,648	\$2,450	\$2,400	\$7,498
Travel	\$3,177	\$2,940	\$2,880	\$8,997
Supplies	\$450	\$417	\$408	\$1,275
Total	\$41,093	\$37,833	\$36,811	\$115,738

Needed Resources

- a. Conservation Agronomist not connected to a for profit company to assist with cover crop mixes specific to individual landowner/field needs
- b. Continuing education of cover crop mixes, soil health, and nutrient management
- c. Updated parcel information with current addresses and **phone numbers**

Strategy Two

Provide a general summary of Strategy Two

Strategy two: Reduce livestock related water quality impairments in Vermillion Creek

Implement BMPs within the priority area (no less than ¼ mile corridor on either side of the stream or greater than the 500-year floodplain), or move livestock out of the priority area, to improve water quality and prevent bacteria from entering the streams. The priority HUCs are: 102701020205, 102701020206, 102701020207, 102701020209

What are the goals for this strategy?

Goal: Start slowly introducing the WRAPS program and our objective to reduce livestock related practices from impacting water quality in Vermillion Creek by December 31, 2025. The goal will be to complete one to two livestock projects, or 50 cow/calf pairs, by year three. Funding for projects will be left in year one for the chance of a project to happen. These goals will be met by establishing the following BMPs:

- Off-stream waterers
- Relocate feeding areas
- Grazed cover crops
- Buffers

This will reduce nitrogen by 182 pounds per year and phosphorus by 97 pounds per year and a total of 546 pounds of nitrogen and 290 pounds of phosphorus in the three year grant cycle.

Tactics and action steps

Aerial truth based on Google Earth

- a. Aerial truth Google Earth maps based off more current images to develop a "VIP" landowner list we would want to work with by March 2024
- b. Share the list with partners to better network with the landowners by March 2024
- c. Ground truth landowners on the list if accessible by August 2024

Outreach and education

- a. Communications (direct mailer, flyers, update information) sent out to landowners in summer 2024.
- b. Run a story in the local newspaper about our program in the watershed in summer 2023.
- c. Continue to support local workshops with a table, information, and speaking spot.
- d. Host small gathering informal talks with local landowners by HUCs in the fall.
- e. Continue creating videos of projects and include landowners' testimonials

Key performance indicators for the tactics

	Year 1	Year 2	Year 3	Total
BMP Indicators				
Livestock	0	25 pair	25 pair	50 pair
Cover Crops	0	10 acres	10 acres	20 acres
Coordination Indicators				
Ground truth VIP sites	0	10	10	20
Outreach and Education Indicators				
Communication Letters	0	1	1	2
Newspaper ads	0	1	1	2
Support local workshops	3	3	3	9
Small gatherings	0	1	1	2
Landowner Introductions	0	2	2	4

What are the resources that you will need and use to get the tactics done?

Resources					
Budget Needs - Strategy 2 Summary	Yr 1	Yr 2	Yr 3	Total	
Livestock and Cover Crops	\$3,000	\$5,000	\$5,000	\$13,000	
Technical Service Provider	\$887	\$1,490	\$1,505	\$3,881	
Outreach & Education	\$296	\$497	\$502	\$1,294	
Travel	\$355	\$596	\$602	\$1,552	
Supplies	\$50	\$84	\$85	\$220	
Total	\$4,587	\$7,666	\$7,693	\$19,947	

Needed Resources

- a. Conservation Agronomist not connected to a for profit company to assist with cover crop mixes specific to individual landowner/field needs
- b. Parcel information with current addresses and **phone numbers**

Strategy Three

Provide a general summary of Strategy Three

Strategy three: Reduce sediment related water quality impairments in Soldier Creek

Implement BMPs within the priority area to improve water quality and prevent a biology impairment caused by sediment from entering the streams. The priority HUCs are: 102701020801, 102701020802, 102701020803.

What are the goals for this strategy?

Goal: Reduce sediment related practices from impacting water quality in Soldier Creek by December 31, 2025. The goal will be to establish the following BMPS:

- Riparian Buffers 10 acres/year
- Cover Crops and Soil Health Practices 80 acres/year

General BMPs to be used as padding for specific projects or unforeseen needs related to agriculture practices impact on water quality.

This will reduce nitrogen by 900 pounds per year, phosphorus by 550 pounds per year, and sediment by 440 tons per year for a total of 2700 pounds of nitrogen, 1650 pounds of phosphorus, and 1320 tons of sediment in the three year grant cycle.

Tactics and action steps

Re-assess current "VIP" list

- **a.** Reassess Google Earth maps based off more current images to refresh "VIP" landowners we would want to work with by March 2023
- b. Share the list with partners to better network with the landowners by March 2023
- c. Ground truth landowners on the list if accessible by March 2023

Obtain winter ground cover information

a. Utilize a program, such as Optis, to identify parcels where cover crops are not currently being utilized by June 2023.

Approach FSA in Jackson County with a MOU

- a. Draft a MOU to FSA to share information regarding CRP
- b. Work closely with FSA to identify landowners that were not accepted into the CRP buffer program to capture interested landowners.
- c. Pending rates in the 2023-2025 years, assist FSA with incentive payments for landowners unsure about enrolling acres into CRP.

Outreach and education

- a. Communications (direct mailers flyers, update information) sent out to landowners in spring 2023 highlighting projects from well-known landowners in the watershed.
- b. Run a story in the local newspaper about our program in the watershed in spring 2023.
- c. Continue to support local workshops with a table, information, and speaking spot.
- d. Host small gathering informal talks with local landowners by HUCs in the spring/summer.
- e. Ask landowners with WRAPS funded projects to make introductions to surrounding landowners.
- f. Continue creating videos of projects and include landowners' testimonials.

g. Continue to sponsor scholarships to interested landowners on topics of interest to our goal.

Key performance indicators for the tactics

	Year 1	Year 2	Year 3	Total
BMP Indicators				
Riparian Buffers	10 acres	10 acres	10 acres	30 acres
Cover Crops/Soil Health	80 acres	80 acres	80 acres	240 acres
Coordination Indicators				
Ground truth VIP sites	5	5	5	15
Outreach and Education Indicators				
Communication Letters	1	1	1	3
Newspaper ads	1	1	1	3
Support local workshops	3	3	3	9
Small gatherings	1	1	1	3
Landowner Introductions	4	4	4	12
Project videos	2	2	2	6
Scholarship sponsor	5	5	5	15

What are the resources that you will need and use to get the tactics done?

Resources				
Budget Needs - Strategy 3				
Summary	Yr 1	Yr 2	Yr 3	Total
Riparian Buffers	\$9,000	\$9,000	\$9,000	\$27,000
Cover Crops/ Soil Health	\$9,000	\$9,000	\$9,000	\$27,000
General BMP	\$2,875	\$2,675	\$2,925	\$8,475
Technical Service Provider	\$6,170	\$6,159	\$6,296	\$18,626
Outreach & Education	\$2,057	\$2,053	\$2,099	\$6,209
Travel	\$2,468	\$2,464	\$2,519	\$7,450
Supplies	\$350	\$349	\$357	\$1,055
Total	\$31,919	\$31,700	\$32,196	\$95,815

Needed Resources

- a. MOU with FSA (currently pending)
- b. Continuing education of cover crop mixes, soil health, and nutrient management
- c. Updated parcel information with current addresses and **phone numbers**