Project Implementation Plan SFY23-25

Milford Reservoir WRAPS

WRAPS Coordinator: Adam Bauer

Grant Start: July 1, 2022
Grant End: December 31, 2025
Total Allocation: $420,000

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	$66,900	$67,700	$68,600
Admin/Indirect	$14,000	$14,000	$14,000
Travel/Supplies	$12,800	$12,800	$12,800
Strategy Implementation/BMPs	$46,300	$45,500	$44,600
Total:	$140,000	$140,000	$140,000

Estimated Load Reductions	
Phosphorus	8,448 lbs.
Nitrogen	19,163 lbs.
Sediment	5,275 tons

Strategy and Goals	Funding	Load Reductions		
		Phosphorus (lbs/yr)	Nitrogen (lbs/yr)	Sediment (tons/yr)
Limit livestock access to riparian areas for watering or feeding in the Buffalo and Salt Creek watersheds for FCB TMDL impairments. BMPs will limit cattle access by 350 AUs through: • Alternative water sources • Alternative feeding sites • Virtual Fencing • Cover Crops/Alternative Grazing (100 AUs)	$40,449	994	1,873	N/A

Remove livestock watering out of riparian areas in the Peats Creek watershed to address FCB and nutrient TMDL impairments and demonstrate the use of off-stream watering systems to facilitate fall/winter grazing of cover crops. BMPs will limit cattle access by 250 AUs and provide alternative grazing on 600 acres of cover crops. BMPs will include: • Alternative water sources • Electric fencing • Alternative feeding sites • Cover Crops	$42,135	1,656	3,244	868
Implement soil health related BMPs on the Milford Wildlife Area to address phosphorus TMDL impairments. Collaborate with KDWP to increase the adoption of soil health BMPs, with the focus on cover crops and nutrient management, by the tenant farmers on the Milford Wildlife Area BMPs will include 200 acres of cover crops and 200 acres of nutrient management plans. Improve the stewardship of the soil on the Milford Wildlife Area through education and ground truthing with the Wildlife Area Manager.	$11,742	529	1,057	443
Implement soil health related BMPs in cropland priority watersheds in the Milford Reservoir watershed to address phosphorus TMDL impairments. BMPs will include • Cover Crops (1200 ac) • Nutrient Management (1200 ac) • Grass buffer strips (100 ac) • No-till adoption (100 ac)	$42,074	5,269	12,989	3,964

Project Information

Project Title

Milford Reservoir 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

Street Address

PO Box 142

City, State, Zip

Holton, KS 66436

Sponsor Tax Payer ID (FEIN)

04-3783861

Signature Authority Name

Aaron Deters

Signature Authority Email

aaron.deters@kaws.org

Signature Authority Phone Number

(785) 410-0040

Enter project contact information

Name

Adam Bauer

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City, State, Zip

Milford, KS 66514

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Project Overview

List the HUC12s that are included in this project.

102500170101, 102500170102, 102500170103, 102500170104, 102500170105, 102500170106, 102500170107, 102500170306, 102500170307, 102500170308, 102500170309, 102500170406, 102500170408, 102500170409, 102500170501, 102500170502, 102500170506, 102500170507, 102500170601, 102500170602, 102500170603, 102500170604, 102500170605, 102500170607, 102500170608

Will a public water supply system be impacted by the project?

☒Yes
☐No

If yes, please enter the impacted public supplies.

Public water supplies in the Lower Republican Watershed (Milford Reservoir Watershed) include: City of Agenda, City of Aurora, City of Belleville, City of Clay Center, Clay County Rural Water District (RWD) #01, Clay County RWD #02, City of Clifton, Cloud County RWD #01, City of Clyde, City of Concordia, City of Courtland, City of Cuba, City of Formoso, Geary County RWD #01, Geary County RWD #02, Geary County RWD #04, City of Green, City of Jamestown, City of Jewell, Jewell County RWD #01, City of Junction City, City of Linn, City of Mankato, City of Milford, Mitchell County RWD #03, City of Morganville, City of Palmer, City of Randall, Republic County RWD #01, Republic County RWD #02, City of Scandia, City of Wakefield and Washington County RWD #02.

Describe the project history.

The Lower Republican Watershed in Kansas covers approximately 1,266,400 acres with 891 stream miles. There are numerous towns and cities in this watershed in addition to developed areas surrounding Milford Reservoir, the largest and only federal reservoir in the watershed.

Construction of the dam for Milford Reservoir began in 1962 by the US Army Corps of Engineers (USACE) and the multipurpose pool was filled in 1967. The surface area of the reservoir is approximately 15,500 acres with a maximum depth of 18 meters and an average depth of 7.4 meters. In 1962, the reservoir had a storage capacity of 415,403 acre-feet.

In 1999 the Lower Republican Watershed was designated as a Category I watershed indicating that it is in need of restoration as defined by the Kansas Unified Watershed Assessment submitted to the Environmental Protection Agency (EPA) by the Kansas Department of Health and Environment (KDHE) and the United States Department of Agriculture (USDA). A Category I watershed does not meet water quality standards or fails to achieve aquatic system goals related to habitat and ecosystem health. Category I watersheds are also assigned a priority for restoration. The Lower Republican was ranked eleventh in priority out of ninety-two watersheds in the state in this assessment.

In 2008 a group of concerned citizens in the Lower Republican River watershed began meeting out of concern for the health and lifespan of Milford Reservoir, the geographic endpoint of this Watershed plan. They formed two Stakeholder Leadership Teams (SLT) under the guidance of Kansas State Research and Extension (KSRE) personnel. These two teams were located in the Upper Milford and the Lower Milford watersheds. Size of the watershed and convenience to the members of the SLT prompted having two meeting places. Over time, the two SLTs consolidated into one SLT and developed BMPs for the entire drainage basin.

In 2014, KDHE developed a priority schedule for addressing nutrient issues in Kansas watersheds, as directed by the EPA. The Lower Republican watershed was included in the top 16 watersheds to receive priority for nutrient Total Maximum Daily Load (TMDL) development over the next ten years. Within these 16 watersheds, development of a nutrient TMDL for Milford Reservoir eutrophication and dissolved oxygen impairments were ranked number 1 and 2. These TMDLs were approved in 2014.

In 2016, the Coordinator for the SLT changed from KSRE to the Kansas Alliance for Wetlands and Streams (KAWS) and in 2018 a full-time watershed coordinator position was created. The SLT has updated the Best Management Practices (BMPs) and redefined the priority areas in which BMPs can be utilized.

This plan incorporates BMPs recommended to focus on nutrient reduction and preventing or reducing future blooms resulting from:

- Manure management at small (non-permitted) livestock operations
- Nutrient runoff
- Streambank erosion and riparian area degradation

Targeting for this watershed will be accomplished in three areas:

1. Cropland will be targeted for sediment and nutrients
2. Livestock areas will be targeted for bacteria and nutrients
3. Streambanks will be targeted for sediment and nutrients.

Previous work (FY2020-2022) has focused on identifying livestock producers in targeted areas in the targeted riparian areas and reaching out to cropland producers that have cattle to demonstrate the use of a water system to facilitate grazing cover crops in the Buffalo Creek, Salt Creek and Peats Creek watersheds.

Another strategy was to partner and collaborate with the Kansas Department of Wildlife and Parks (KDWP) to implement BMPs on the Milford Wildlife Area around Milford Reservoir.

The project continued to utilize and facilitate practices associated with the Milford Reservoir Regional Conservation Partnership Program (RCPP). The coordinator became familiar with NRCS programs and assisted landowners with questions. The coordinator participated in RCPP meetings and persuaded producers to utilize the RCPP program when relevant.

The project facilitated informational/educational opportunities in the watershed for producers to include topics in soil health, nutrient management, livestock management and other relevant information including partnering with Polansky Seed and Wilbur-Ellis on a cover crop field day and hosting two soil health workshops. The coordinator partnered with farmer-to-farmer coaches and attended farmer-to-farmer meetings.

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),

The SLT is made up of Conservation District Managers, local agency staff and local producers. The SLT meets quarterly and discussions focus on ways to engage producers within the watershed to increase the adoption of BMPs that result in cleaner surface water entering Milford Reservoir.

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

- Rhonda Coffman, SLT Chair, Cloud County Conservation District Manager, rhonda.coffman@ks.nacdnet.net
- Kelly Griffith, SLT Vice-Chair, Jewell County Producer, kellywadegriffeth@gmail.com
- Nina Meyer, SLT Member, Washington County Conservation District Manager, nina.meyer@ks.nacdnet.net
- Brenda Mikesell, SLT Member, Republic County Conservation District Manager, brenda.mikesell@ks.nacdnet.net
- Vacant, SLT Member, Clay County Conservation District Manager, vacant@ks.nacdnet.net
- Vacant, SLT Member, Jewell County Conservation District Manager, vacant@ks.nacdnet.net
- Josh Wohler, SLT Member, NRCS, joshua.wohler@usda.gov
- Jennifer Simmelink, SLT Member, Kansas Soil Health Alliance, jennifer@kssoilhealth.org
- Kristin Kloft, SLT Member, Kansas Department of Agriculture-Division of Conservation, kristin.a.kloft@ks.gov
- Kenny Beach, SLT Member, Wilbur-Ellis, kbeach@wilburellis.com
- Bryan Cleveland, SLT Member, Cloud County Producer, bryan.cleveland@hotmail.com
- Greg Sherbert, SLT Member, Clay County Producer, gregsherbert@yahoo.com
- Loren Swenson, SLT Member, Cloud County Producer, lorensw47@gmail.com
- Mike Cleveland, SLT Member, Cloud County Producer, lonesomepine17@gmail.com
- Ron Gilbert, SLT Member, Clay County Producer, roncgilbert@gmail.com
- Wayne Jeardoe, SLT Member, Cloud County Producer, waynojeardoe@yahoo.com

Project Scope

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

Nutrient related impairments that are listed on the 303d list are found in the Republican River, Peats Creek, Buffalo Creek, Elm Creek, Mulberry Creek, Salt Creek and Wolf Creek. Fecal coliform bacteria (FCB) TMDLs are present in Salt Creek and Buffalo Creek. All livestock BMPs aimed at reducing nutrients in this watershed will have a positive effect on FCB as well. All BMPs aimed at phosphorus, nitrogen and FCB reductions will be expressed with a focus on phosphorus. BMPs addressing phosphorus and FCB impairments will also help address Dissolved Oxygen and Eutrophication TMDLs present on Salt Creek and Milford Reservoir.

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.

The major land use for the entire Lower Republican Watershed is cropland (50% - 629,000 acres) and the second major land use is grassland (38% - 463,000 acres).

The Lower Republican Watershed was assessed using the Soil and Water Assessment Tool (SWAT) by Kansas State University Department of Biological and Agricultural Engineering. SWAT was used as an assessment tool to estimate annual average pollutant loadings such as nutrients and sediment that are coming from the land into the stream.

KDHE has completed aerial assessments (AA) for all priority HUC 12s. The purpose of the AA is to identify potential sources of sediment and nutrients in targeted HUC12s that could be addressed by BMP implementation. The Peats Creek and Buffalo Creek priority areas have been ground-truthed based on the aerial assessments. Salt Creek has been sampled twice for *E. coli* bacteria; 2005 and 2009.

Budget

Personnel			
Budget Line	**Grant Request**	**Match**	**Total**
Year 1	$59,400	$1,500	$60,900
Year 2	$60,200	$1,500	$61,700
Year 3	$61,000	$1,500	$62,500
Total Requested	**$180,600**	**$4,500**	**$185,100**
Description	Salary for 1.0 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.		

Fringe			
Budget Line	**Grant Request**	**Match**	**Total**
Year 1	$7,500	$0.00	$7,500.
Year 2	$7,500	$0.00	$7,500.
Year 3	$7,600	$0.00	$7,600
Total Requested	**$22,600**	**$0.00**	**$22,600**
Description	Fringe benefits for 1.0 FTE Watershed Coordinator include health insurance stipend, retirement account (3% of base pay rate) and cell phone stipend.		

Travel			
Budget Line	**Grant Request**	**Match**	**Total**
Year 1	$12,000	$3,500	$15,500
Year 2	$12,000	$3,500	$15,500
Year 3	$12,000	$3,500	$15,500
Total Requested	**$36,000**	**$10,500**	**$46,500**
Description	Coordinator mileage reimbursement, hotel fees, meals and other expenses incurred while traveling for meetings, workshops and landowner meetings. Match will come from mileage (federal mileage rate) of SLT members and attendees of meetings and workshops collected via a sign-in sheet at each meeting.		

Supplies			
Budget Line	**Grant Request**	**Match**	**Total**
Year 1	$800	$5,893	$6,693
Year 2	$800	$5,893	$6,693
Year 3	$800	$5,893	$6,693
Total Requested	**$2,400**	**$17,679**	**$20,079**
Description	Supplies include office expenses, printing of materials, SLT meeting expenses, monthly fee for internet hotspot and a laptop. In-kind match will come from retail value of ESRI license purchased annually at the non-profit rate.		

BMP/Strategy Funding			
Budget Line	**Grant Request**	**Match**	**Total**
Year 1	$46,300	$88,197	$134,497
Year 2	$45,500	$88,197	$133,697
Year 3	$44,600	$88,197	$132,797
Total Requested	**$136,400**	**$264,591**	**$400,991**
Description	Best Management Practice allocations. Includes $5,000/year allocated to outreach and education for the BMP strategies. These are the dollars budgeted for contracting BMPs to landowners in the priority areas. Match generated from landowners share of project, lost income from some projects, maintenance activities during establishment of practices and additional work done in support of a project that is not reimbursable.		

Indirect			
Budget Line	**Grant Request**	**Match**	**Total**
Year 1	$14,000	$910	$14,910
Year 2	$14,000	$910	$14,910
Year 3	$14,000	$910	$14,910
Total Requested	**$42,000**	**$2,730**	**$44,730**
Description	10% de minimis on the grant total, minus the TSP allocation. The indirect funds will be used for KAWS organizational overhead expenses as well as 0.14 of the KAWS' Assistant Director/WRAPS Coordinator position. KAWS' Executive Director will provide 20 hours as match at a billable rate of $45.62/hour each year.		

WRAPS Strategic Planning

General Plan Implementing Years 13 through 15 of the approved Milford Reservoir WRAPS 9-Element Watershed Plan. The load reduction goals of these years of the plan are 451,476 pounds of nitrogen, 92,692 pounds of phosphorus and 94,592 tons of sediment. The strategies in this project implementation plan will achieve 19,163 pounds of nitrogen, 8,448 pounds of phosphorus and 5,275 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, project coordinators 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, KDWP, USDA 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 livestock BMPs for FCB such as: off-stream watering systems, cover crops (grazing), livestock exclusion, relocation of feeding sites and buffer strips as well as cropland BMPs for phosphorus such as: cover crops, conversion to no-till, nutrient management plans and vegetative buffers.

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

The budget resources needed for implementation of this plan are listed under the "Budget" section above. The required budget allocation for Information/Education and BMP implementation is $136,400. Other resources required include:

- Watershed Specialist contracted through K-State Research and Extension
- Conservation District Managers
- NRCS personnel
- County Farm Bureau Associations
- KDWP Biologists
- KDWP Wildlife Area Managers
- Farmer-to-Farmer program coaches

Strategy One

Provide a general summary of Strategy One

Limit livestock access to riparian areas for watering or feeding in the Buffalo Creek watershed (HUCs 102500170101, 102500170102, 102500170103 and 102500170107) and the Salt Creek watershed (HUCs 102500170306, 102500170307, 102500170308 and 102500170309) for FCB TMDL impairments.

What are the goals for this strategy?

The below BMPs to be completed by December 31, 2025.

- **Goal 1:** Install five solar powered livestock watering systems in the Buffalo Creek and Salt Creek watersheds limiting access for 100 head of livestock access to the riparian areas: N = 535lbs, P = 284lbs, Sed = 0
- **Goal 2:** Relocate four feeding sites limiting access for 100 head of livestock to the riparian areas: N = 535lbs, P = 284lbs, Sed = 0
- **Goal 3:** Research virtual fencing options and find two producers to pilot virtual fencing while fall/winter grazing cover crops for 50 head of livestock: N = 268lbs, P = 142lbs, Sed = 0
- **Goal 4:** Implement cover crops planted for 100 head of livestock fall/winter grazing: N = 535lbs, P = 284lbs, Sed = 0

Tactics and action steps

1. Assessment
    a. Based on KDHE AAs compile a list of targeted VIP livestock producers in the targeted HUCs fall/winter 2022
    b. Perform a windshield survey of livestock targeted HUCs fall/winter 2022
        i. Google earth pins will be used to make notes on each field
        ii. Data will be assessed and organized by Spring 2023
        iii. Data will be utilized to target efforts as well as re-evaluate efforts in 2024
    c. Compile a list of the VIP livestock producers in the targeted HUCs
    d. Collect address and phone numbers – Completed by Fall 2023
2. Outreach
    a. Develop communication strategies that reach VIPs in targeted HUCs.
        i. Publish social media posts targeted at producers in targeted HUCs.
    b. Host workshop in December each year with K-State watershed specialist and invite the VIPs as well as general distribution to partners.
        i. Topics will include livestock BMPs including: off-stream watering options, relocation of feeding sites, buffer strips and the economics of livestock and soil health principles. Locations will be determined at least 2 months in advance and will move around the watershed.
        ii. Will utilize the Kansas Soil Health Alliance and Kansas Farm Bureau Associations to gather preferred speakers.
        iii. Cover crop seed gift certificates will be raffled off to those that attend and fill out a survey.
        iv. Follow up with 2-3 individual field visits with VIP producers after workshops (1-2 weeks after workshop).

v. Workshops on past WRAPS projects with testimonials will be top priority when available.
vi. Post workshop surveys will be used to determine effectiveness and needs of producers.

c. Perform 1 site visit (included with post-workshop visits) per month with producers.
i. Develop notes/interest information for each listed producer.
ii. Combine similar interest producers for small talks on soil health hosted at one of their farms.

d. Cold Calls
i. From an identified list of VIPs and general producers in targeted HUCs, make 2 cold calls per month to discuss the WRAPS program and water quality concerns to establish a relationship with the community.

Key performance indicators for the tactics

	Year 1	Year 2	Year 3	Total
Off-stream watering system	1	2	2	5
Relocation of feeding sites	1	1	2	4
Virtual fence	0	1	1	2
Cover crops for winter grazing	2	2	2	6
Workshops	1	1	1	3
Social media posts	12	12	12	36
Cold calls	24	24	24	72
Site visits	12	12	12	36

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

Resources needed: K-State Watershed Specialist, Conservation District Manager, Kansas Farm Bureau Association, social media advertising training

	Year 1	Year 2	Year 3	Total
Off-stream watering system	$5,000	$4,000	$4,000	**$13,000**
Relocation of feeding sites	$3,000	$3,000	$3,000	**$9,000**
Virtual fence		$2,000	$2,000	**$4,000**
Cover crops	$3,000	$2,000	$2,000	**$7,000**
Workshop/Social media posts	$1,000	$1,000	$1,000	**$3,000**
Strategy related I&E	$1,453	$1,481	$1,515	**$4,449**
Total	**$13,453**	**$13,481**	**$13,515**	**$40,449**
K-State Watershed Specialist	$6,000	$6,000	$6,000	**$18,000**

Strategy Two

Provide a general summary of Strategy Two

Remove livestock that are watering out of riparian areas in the Peats Creek watershed (HUCs 102500170501, 102500170502) for FCB and nutrient TMDL impairments and demonstrate the use of off-stream watering systems to facilitate fall/winter grazing of cover crops.

What are the goals for this strategy?

The below BMPs to be completed by December 31, 2025.

- **Goal 1:** Install six solar powered livestock watering systems in the Peats Creek watershed to eliminate 150 head of livestock from watering out of Peats Creek: N = 535lbs, P = 284lbs, Sed = 0
- **Goal 2:** Find two producers to demonstrate paddock grazing of cover crops using poly-wire fencing systems while fall/winter grazing cover crops for 100 head of livestock: N = 535lbs, P = 284lbs, Sed = 0
- **Goal 3:** Implement 600 acres of cover crops planted for livestock fall/winter grazing: N = 2,174lbs, P = 1,088lbs, Sed = 868

Tactics and action steps

1. Assessment
    a. Based on KDHE AAs compile a list of targeted VIP livestock producers in the targeted HUCs fall/winter 2022
    b. Perform a windshield survey of livestock targeted HUCs fall/winter 2022
        i. Data will be assessed and organized by Spring 2023
        ii. Data will be utilized to target efforts as well as re-evaluate efforts in 2024
    c. Compile a list of the VIP livestock producers in the targeted HUCs
    d. Collect address and phone numbers – Completed by Fall 2023
2. Outreach
    a. Develop communication strategies that reach VIPs in targeted HUCs.
        i. Publish Facebook posts targeted at producers in targeted HUCs.
    b. Host workshops with Tuttle Creek Reservoir WRAPS and K-State Watershed Specialist and invite the VIPs as well as general distribution to partners.
        i. Locate producer with wheat planted who is willing to plant cover crop test plots and host a demonstration field day. The field will be divided in half and livestock will be allowed to graze one half prior to the field day. Attendees will be able to see how the cover crops performed and what the livestock preferred.
        ii. Topics will include: growing warm-season cover cops following wheat harvest and extending the livestock grazing season into the winter months, off-stream watering options and the economics of livestock and soil health principles. Locations will be determined at least 3 months in advance.
        iii. Will utilize the Kansas Soil Health Alliance and the Kansas Farm Bureau Associations to gather speakers.
        iv. Cover crop seed gift certificates will be raffled off to those that attend and fill out a survey.

v. Follow up with 2-3 individual field visits with VIP producers after workshops (1-2 weeks after workshop).
vi. Workshops on past WRAPS projects with testimonials will be top priority when available.
vii. Post-workshop surveys will be used to determine effectiveness and needs of producers.

c. Perform 2 field visits (included with post-workshop visits) per month with producers.
   i. Develop notes/interest information for each listed producer.
   ii. Combine similar interest producers for small talks on soil health hosted at one of their farms.

d. Cold Calls
   i. From identified list of VIPs and general producers in targeted HUCs, make 2 cold calls per month to discuss the WRAPS program and water quality concerns to establish a relationship with the community.

Key performance indicators for the tactics

	Year 1	Year 2	Year 3	Total
Off-stream watering system	2	2	2	6
Poly-wire system	0	2	2	4
Cover crops	200 acres	200 acres	200 acres	600 acres
Workshops	1	1	1	3
Social media posts	12	12	12	36
Cold calls	24	24	24	72
Site visits	2	2	2	6

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

Resources needed: K-State Watershed Specialist, Conservation District Manager, Washington County Farm Bureau Association, social media advertising training

	Year 1	Year 2	Year 3	Total
Off-stream watering system	$5,000	$5,000	$5,000	**$15,000**
Poly-wire system	$0	$4,000	$4,000	**$8,000**
Cover crops	$6,500	$3,000	$3,000	**$12,500**
Workshop/Social media posts	$1,000	$500	$500	**$2,000**
Strategy related I&E	$1,514	$1,543	$1,578	**$4,635**
Total	**$14,014**	**$14,043**	**$14,078**	**$42,135**
K-State Watershed Specialist	$4,000	$4,000	$4,000	**$12,000**

Strategy Three

Provide a general summary of Strategy Three

Implement soil health related BMPs on the Milford Wildlife Area (HUCs 102500170601, 102500170602, 102500170603, 102500170604, 102500170605, 102500170607, 102500170608) for phosphorus TMDL impairments.

What are the goals for this strategy?

The below BMPs to be completed by December 31, 2025.

- **Goal 1:** Collaborate with KDWP and increase the adoption of soil health BMPs, with the focus on cover crops and nutrient management, by the tenant farmers on the Milford Wildlife Area to implement 200 acres of cover crops and 200 acres of nutrient management plans: N = 1,057lbs, P = 529lbs, Sed = 443tons
- **Goal 2:** Improve the stewardship of the soil on the Milford Wildlife Area through education and ground truthing with the Wildlife Area Manager.

Tactics and action steps

1. Outreach
    a. Meet with tenant farmers every winter when they sign their contracts with the wildlife area manager – Completed every winter.
    b. Invite all tenant farmers to workshops hosted in the area.
    c. Offer to pay for 100% of cover crop cost in exchange for tenant to host field day for other tenants – Completed winter 2023.
    e. Perform 2 field visits per year with tenant farmers and wildlife area manager.
        i. Develop notes/interest information for each tenant farmer.
        ii. Combine similar interest tenant farmers for small talks on soil health hosted at one of their farms.
        iii. Invite Wildlife Area Manager to ground truth agricultural fields throughout wildlife area highlighting areas that need BMP implementation.
    f. Cold Calls
        i. Make 2 cold calls per month to discuss cover crops and the WRAPS program to establish a relationship with the tenants.

Key performance indicators for the tactics

	Year 1	Year 2	Year 3	Total
Cover crops	100 acres	100 acres	100 acres	300 acres
Educational talks	1	1	1	3
Field Visits	4	4	4	12
Cold calls	12	12	12	36

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

Resources needed: Milford Wildlife Area Manager

	Year 1	Year 2	Year 3	Total
Cover crops	$3,450	$3,500	$3,500	**$10,450**
Strategy related I&E	$418	$432	$442	**$1,292**
Total	**$3,868**	**$3,932**	**$3,942**	**$11,742**

Strategy Four

Provide a general summary of Strategy Four

Implement soil health related BMPs in cropland priority watersheds in the Milford Reservoir watershed (HUCs 102500170104, 102500170105, 102500170106, 102500170406, 102500170408, 102500170409, 102500170501, 10250010502, 102500170506, 102500170507, 102500170601, 102500170602, 102500170603) for phosphorus TMDL impairments.

What are the goals for this strategy?

The below BMPs to be completed by December 31, 2025

- **Goal 1:** Implement 1,200 acres of cover crops planted: N = 4,056lbs, P = 2,030lbs, Sed = 1,592tons
- **Goal 2:** Implement 1,200 acres of nutrient management plans: N = 1,245lbs, P = 623lbs, Sed = 531tons
- **Goal 3:** Implement 100 acres of grass buffer strips: N = 3,354lbs, P = 2,399lbs, Sed = 1,660tons
- **Goal 4**: Implement the conversion of 100 acres to no-till cropping practices: N = 4,334lbs, P = 217lbs, Sed = 181tons
- **Goal 5:** Facilitate soil health BMPs through educational workshops and field trips.

Tactics and action steps

1. Assessment
    a. Based on KDHE Aerial Assessments compile a list of targeted VIP cropland producers in the targeted HUCs fall/winter 2022
    b. Perform a windshield survey of cropland targeted HUCs fall/winter 2022
        i. Data will be assessed and organized by Spring 2023
        ii. Data will be utilized to target efforts as well as re-evaluate efforts in 2024
    c. Compile a list of the VIP cropland producers in the targeted HUCs
    d. Collect address and phone numbers – Completed by Fall 2023
2. Outreach/Communication
    a. Develop communication strategies that reach VIPs in targeted HUCs.
        i. Develop social media posts targeted at cropland producers in targeted HUCs.
    b. Partner with agronomists from local retailers and host workshop with VIPs as well as general distribution to partners.
        i. Topics will include: soil health, regenerative agriculture, cover crops and nutrient management plans.
        ii. Locations will be determined at least 2 months in advance.
        iii. Will utilize the Kansas Soil Health Alliance to gather speakers.
        iv. Cover crop seed gift certificates will be raffled off to those that attend and fill out a survey.
        v. Follow up with 2-3 individual field visits with VIP producers after workshops (1-2 weeks after workshop.
        vi. Workshops on past WRAPS projects with testimonials will be top priority when available.
        vii. Post-workshop surveys will be used to determine effectiveness and needs of producers.

c. Assist farmer-to-farmer coaches with small farmer-to-farmer meetings.

3. Perform 1 field visit (included with post-workshop visits) per month with producers.
   a. Cold Calls
      i. From identified list of VIPs and general producers in targeted HUCs, make 2 cold calls per month to discuss the WRAPS program and water quality concerns to establish a relationship with the community.

Key performance indicators for the tactics

	Year 1	Year 2	Year 3	Total
Cover crops	400 acres	400 acres	400 acres	1,200 acres
Nutrient management plans	400 acres	400 acres	400 acres	1,200 acres
Buffer strips	20	40	40	100 acres
No-till	100 acres	0	0	100 acres
Workshops	1	1	1	3
Regen Ag Lab Visit	1	1	1	3
Social media posts	2	2	2	6
Cold calls	24	24	24	72
Site visits	12	12	12	36

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

Resources needed: Conservation District Manager, NRCS personnel, social media advertising training

	Year 1	Year 2	Year 3	Total
Cover crops	$4,000	$4,000	$4,000	**$12,000**
Nutrient management plans	$3,500	$3,500	$3,000	**$10,000**
Buffer strips	$2,000	$2,000	$2,000	**$6,000**
No-till	$850	$0	$0	**$850**
Workshops/Social media posts	$2,000	$2,000	$2,000	**$6,000**
Regen Ag Lab Visit	$1,000	$1,000	$600	**$2,600**
Strategy related I&E	$1,616	$1,543	$1,465	**$4,624**
Total	**$14,966**	**$14,043**	**$13,065**	**$42,074**