



# Hinkston Creek Watershed Plan Implementation – Bourbon County Tributaries

**Grant Number: #C9994861-12**

**Application Number: 12-07**

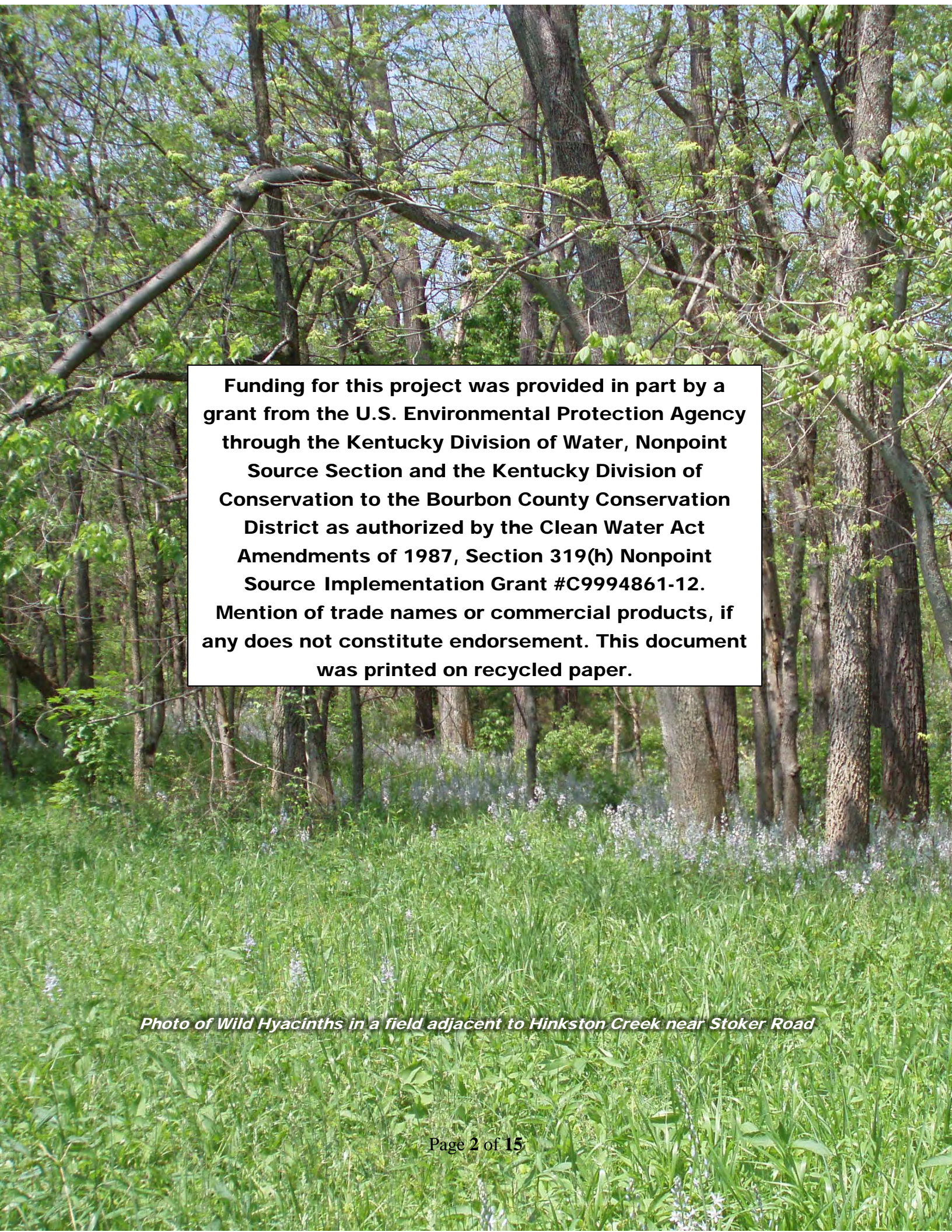
**Memorandum of Agreement Number: PON2 128 1400002981 1**

**Project Period: July 1, 2014 – September 30, 2016**

**Submitted by: Valerie C. Tipton**

*View of Hinkston Creek near Steele Ford Road in Bourbon County, Kentucky*



A photograph of a forest with green trees and a field of wild hyacinths in the foreground. The text is overlaid on a white rectangular box in the center of the image.

Funding for this project was provided in part by a grant from the U.S. Environmental Protection Agency through the Kentucky Division of Water, Nonpoint Source Section and the Kentucky Division of Conservation to the Bourbon County Conservation District as authorized by the Clean Water Act Amendments of 1987, Section 319(h) Nonpoint Source Implementation Grant #C9994861-12. Mention of trade names or commercial products, if any does not constitute endorsement. This document was printed on recycled paper.

*Photo of Wild Hyacinths in a field adjacent to Hinkston Creek near Stoker Road*



## Acknowledgments

### Bourbon County Conservation District Board of Supervisors

- Bill Dickson, Chairman
- Beecher Hines, Vice Chairman
- Randy Roberts, Secretary/Treasurer
- Wilson Wilder
- Samuel Clay, IV
- Todd McFarland
- Lee McMillin

United States Department of Agriculture, Natural Resources  
Conservation Service

Barry Toning, Tetra Tech Inc.

Bourbon County Cooperative Extension Service

United States Department of Agriculture, Farm Service Agency

Kentucky Division of Conservation

Kentucky Division of Water

## Table of Contents

	Page
Executive Summary .....	5
Introduction & Background .....	6
Materials & Methods .....	7
Results & Discussion .....	8
Conclusions .....	9
Literature Cited .....	15
<b>Lists of Figures and Tables</b>	
1-1 Watershed Map showing beneficial use support status .	11
1-2 Watershed Maps of Boone & Blacks Creeks.....	12
1-3 BMP Location Map.....	13
2-1 BMPs Installed During Grant Table .....	14
<b>Appendices</b>	
A. Financial & Administrative Closeout .....	16
B. Best Management Practices Implementation Plan .....	19
C. Ranking Criteria Approved 10/28/2014.....	22
D. Ranking Criteria Approved 7/20/2015.....	23
E. Community Outreach .....	24



## EXECUTIVE SUMMARY

Located in the heart of Kentucky's famous Bluegrass Region, Bourbon County has a rich history of agricultural production which continues to provide employment and livelihood to its residents. Ranking 5<sup>th</sup> in the state for livestock cash receipts in the most recent County Statistics Bulletin (1) and coupled with our abundant stream miles and karst topography, it comes as no surprise that water quality issues are a major concern. The Bourbon County Conservation District entered into this grant to continue our mission to protect our natural resources with the expectation that this opportunity would indeed improve water quality in the Hinkston Creek Watershed.

The goal of this grant was to reduce nonpoint source pollutant loads in Hinkston Creek by implementing the Hinkston Creek Watershed-Based Plan. The primary objectives were identifying agricultural related resource concerns, developing quality plans to address those concerns and providing cost share assistance according to a ranking criteria to target funds for greatest impact on water quality. We believed that the landowners in this watershed would recognize the value of implementing best management practices to serve not only in a direct reduction of pollutants entering streams; but, also, as a model for others in the watershed to replicate in the future on other farms. Simply by promoting the grant we were able to highlight the status of Kentucky Division of Water designated impaired watersheds which include Boone Creek, Blacks Creek and portions of Hinkston Creek. Utilizing cost share funds incentivized participation in this program and gave us an opportunity to education landowners on the benefits of following a conservation plan on their farm. We developed our ranking criteria to prioritize applicants so that resource concerns with the greatest potential to negatively impact water quality would be funded. We carefully planned projects which met our program guidelines and benefited our farmers. This process assured that the success of this grant would continue to be evident down the road and participants could relate positively their experiences in the community.

Recognizing that the task of protecting our natural resources and supporting our agricultural economy is a challenging effort, this grant has been a valuable tool. We believe that through implementation of the goals of the Hinkston Creek Watershed-Based Plan with this grant's targeted cost share assistance on individual farms, water quality in the watershed will show improvement.



## INTRODUCTION AND BACKGROUND

Using guidance contained in the Hinkston Creek Watershed Plan (2), the project sought to continue implementation of the KDOW-approved watershed-based plan in the Hinkston Creek drainage area of Bourbon County, Kentucky. The project focused on BMP implementation on agricultural lands (>90% of the land use) (6), with a special emphasis on two impaired tributaries – Blacks Creek and Boone Creek, both of which are listed by KDOW for nutrient/eutrophication biological indicators and sedimentation/siltation, due to livestock grazing/feeding operations.

There were two primary objectives for this project – identify, target and implement best management practices; and, build upon the awareness, education and motivational aspects of the prior Hinkston Creek Watershed Project.

The Bourbon County Conservation District was first introduced to the DOW's 319(h) federal grant program through a grant which began May 21, 2012 and concluded December 31, 2013. This grant was available to landowners in the Hinkston Creek Watershed in Bourbon County through an agreement with Tetra Tech Inc. who managed that grant. This opportunity resulted in 4.7 miles of stream fenced to exclude livestock as well as installation of numerous other best management practices. Interest in this program was vigorous with many landowners wanting to participate after all funds were expended. In May 2013 the District submitted our own application to continue efforts to improve water quality in the Hinkston Creek Watershed.

The unique feature of this grant was the opportunity to focus our ranking criteria to fund projects which have the best likelihood to achieve the desired results. Citing the Hinkston Creek Watershed Health Report and USDA-NRCS South Fork of the Licking River Rapid Watershed Assessment, destabilized stream banks, lack of vegetation and streamside grazing rank high as contributors to impaired waters. Accordingly we developed the Implementation Plan and Ranking Criteria for this grant to target projects for funding which included livestock exclusion fencing, stream crossings, and alternate water systems. In this way we were able to present this cost share grant to our landowners with these resource concerns ranking highest priority which was a great selling point to reinforce the value of such practices. Based on cost share requests through state and federal programs as well as the prior NPS 319(h) grant in prior years, we expected the interest in installing conservation practices would be great. The likelihood was high that without a detailed ranking criteria, funds could easily be used on less impactful practices instead of flowing toward the most beneficial projects. This grant allowed us to use technical expertise at the local level to concentrate cost share funds for maximum effect on water quality.



## MATERIALS & METHODS

The Hinkston Creek watershed in Bourbon County is located in the Inner Bluegrass region of Kentucky. Originating in Montgomery County, the creek flows northward along the Bourbon and Nicholas County lines and finally joins with Stoner Creek near the historic town of Ruddles Mills to form the South Fork Licking River (Figure 1-1). Bourbon County has a total area of 292 square miles of which 80 square miles drain into the Hinkston Creek watershed. The topography is predominately rolling to hilly and is dissected by many small streams. The majority of stream riparian areas surrounding Blacks and Boone Creeks were found to be impacted during the riparian deficiency analysis completed as part of the Hinkston Creek Watershed Assessment and Management Plan (6). The land use is 95% agricultural, primarily pasture and hayland.

In Bourbon County there are 54.8 miles of waterways within the Hinkston Creek watershed which are listed as impaired in the 2012 305(b) Report to Congress. This means that they do not support the uses required by the Clean Water Act and is the very reason that we entered into this grant. The list of stream deficiencies is long - not supporting aquatic life, not safe for swimming or even wading, high levels of bacteria, insufficient riparian buffers, and denuded streambanks.

Armed with more than a scant amount of data, it was clear that unrestricted cattle access was a major contributor to our problems in Bourbon County. It is no coincidence that areas with higher numbers of livestock also show up on the impaired list. Livestock exclusion would lead to stream buffers and enhanced riparian zones; and, would require alternate water sources as well as stream crossings. So accumulating our tool chest of best management practices began. Not knowing for certain what the response from our landowners would be, we prepared our BMP Implementation Plan (Figure B.) to include fixes for all the bad actors damaging our water quality – critical area planting, heavy use area protection, waste storage facility, cross fencing, diversions, soil health cover crop, sinkhole protection, grassed waterway, etc. We created a ranking criteria and a ranking worksheet to prioritize applicants and prepared an application which collected all the information we would need to determine eligibility and ranking.

And, we promoted, promoted, promoted – through newsletters, newspaper articles, and through word of mouth. One on one outreach to explain the problem and the way this cost share program could offer a landowner the opportunity to improve their farming operation and improve the environment was most effective. This process opened a dialog with landowners to discuss why adopting the high ranking practice of livestock exclusion from streams was good for water quality as well as good for their chances of receiving funding. Our target was focused narrowly, but we cast a wide net. And, the response was robust with all project funds being used on farms to adopt livestock exclusion from their streams or on farms that had already excluded livestock from sensitive areas to install additional best management practices. In this way we were able to most effectively use the funds to do the most good.



## RESULTS & DISCUSSION

The Hinkston Creek Watershed Plan Implementation 319(h) grant for Bourbon County Tributaries resulted in a direct impact upon 5.33 stream miles as well as the adoption of many other best management practices (BMPs) affecting water quality in the watershed. This was accomplished through cost share contracts with 16 landowners to install best management practices on their land. With livestock exclusion a primary objective, all funds were used to achieve exclusion on blue line streams and ponds; or to augment the water quality plans for operations who had already excluded livestock from riparian areas. At the end of the grant, the following BMPs were installed:

1. 7.8 miles of Livestock Exclusion Fence to protect 28,122 feet of streams, 6 ponds and 1 sinkhole.
2. 7 Stream Crossings to allow livestock and equipment stable access across streams.
3. 256 feet of Streambank Protection which stabilized severely eroding streambanks.
4. 1 Obstruction Removal to remove a large tree and accumulated debris from Hinkston Creek which was causing significant lateral recession of the streambank.
5. 3.2 acres of Critical Area Planting to establish vegetative cover on eroding areas
6. 28,272 feet of Pipeline and 32 Livestock Water Tanks to supply alternate water supplies
7. 30,222 square feet of Heavy Use Area Protection to stabilize areas in gateways and around tanks.
8. 16,459 feet of Cross Fencing to facilitate rotational grazing

This grant focused on improving riparian zones. One of our ranking criteria reflected the current channel level of impact so that those reaches that appeared to be under severely stressed conditions would be funded ahead of those reaches that appeared to be under low stress conditions. The assessment followed the High-risk Stream Channel Assessment definitions outlined in "Using Remote Sensing Tools to Target Stream Protection and Wastewater Treatment BMPs in Rural Kentucky by Barry Tanning, Tetra Tech (5). The use of this ranking criteria and ranking worksheet was key in placing funds where they would be most effective.



## CONCLUSIONS

Through this grant we were able to develop a process to identify and prioritize cost share funds to effect water quality both directly on individual farms and indirectly by example to be replicated throughout the watershed. Both elements will be important to water quality in this watershed in the future.

The targeted nature of our approach allowed us to effectively place funds to do the most good; but, also, served as an educational tool to emphasize those BMPs with the most environmental benefit. This was key to the success of the grant. Once the ground work was set with a good application, a wide range of BMPs in our toolbox to choose from and a well thought out Ranking Criteria, the process flowed very smoothly. The fact that those folks who were willing to exclude livestock were also more likely to be funded promoted this practice well enough that we were able to obligate most of our funds to that objective. Any additional funds were available to those who had already excluded livestock from riparian areas by installing cross fencing, pipeline and tanks to promote rotational grazing. If folks didn't want to exclude livestock, we were prepared to move right along installing other BMPs. We were flexible in amending our ranking criteria as new resource concerns came to light through the application process. This attitude of openness to the needs of the landowners really translated into good relations and, hopefully, will reap benefits in the future.

I have learned that people do not object to filling out a complete application and that this document is very valuable in keeping track of lots of good information. It is easier to get this information on the application right up front. We did not advertise the BMP Implementation Plan and all the practices potentially available. This plan was not used to allow folks to pick and choose; but, rather, was the toolbox for conservation planners to use.

A detailed excel spreadsheet - feet of stream impacted, BMPs, lat/long, farm address, phone numbers, design status, etc. and, most importantly, dollar amounts is essential to keeping things straight. As projects start getting designed, installed and certified the money changes so you must know how much money is in your contingency fund. I used the contingency fund as an incentive for early completion as I would have funds available for overruns on a first come first served basis. This worked to some extent I believe and, at the very least, contributed to good communication with the landowners. Presenting their approved project as a contract with all the practices, quantities and money helped avoid any confusion as well.

We were blessed with cooperative and motivated landowners which made this project a pleasure. We are very appreciative of the opportunity to promote conservation and provide financial assistance to the landowners in the Hinkston Creek Watershed in Bourbon County.

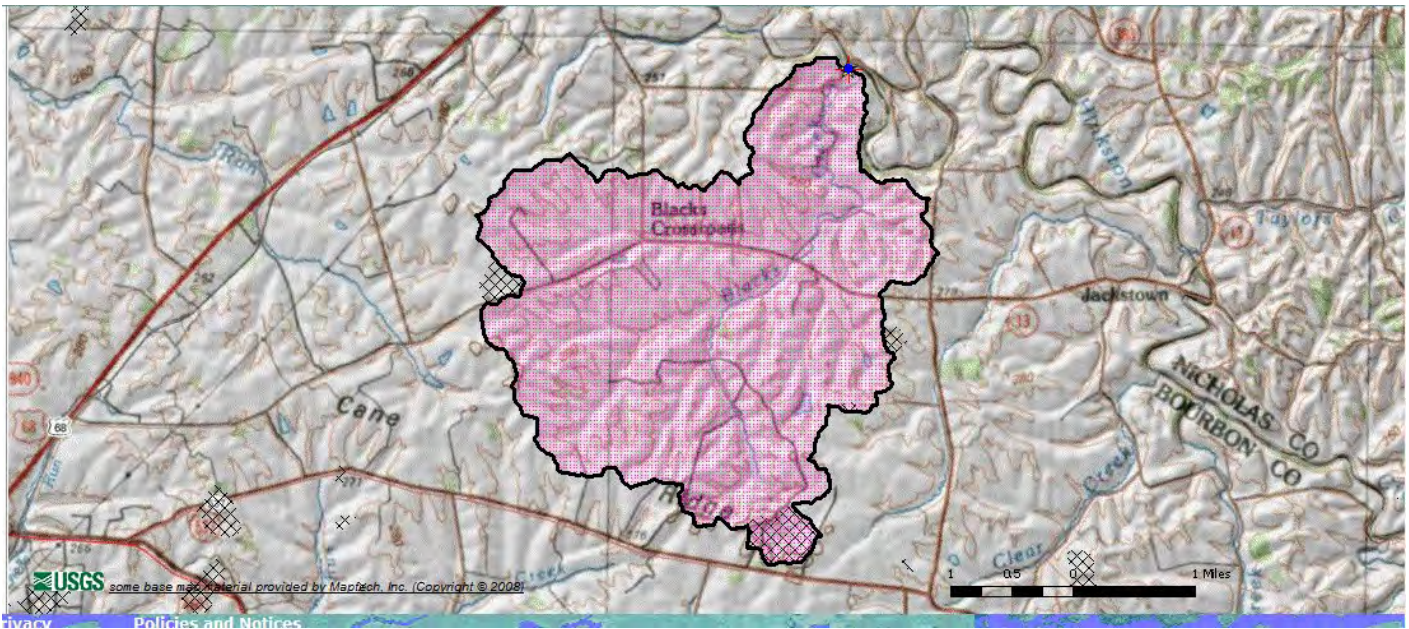


**Figure 1-1 Watershed map showing boundaries and beneficial use support status**



**Figure 1-2**

**Map of the Blacks Creek in Bourbon County (northeast of Paris).**



**Map of the Boone Creek in Bourbon County (east of Paris).**

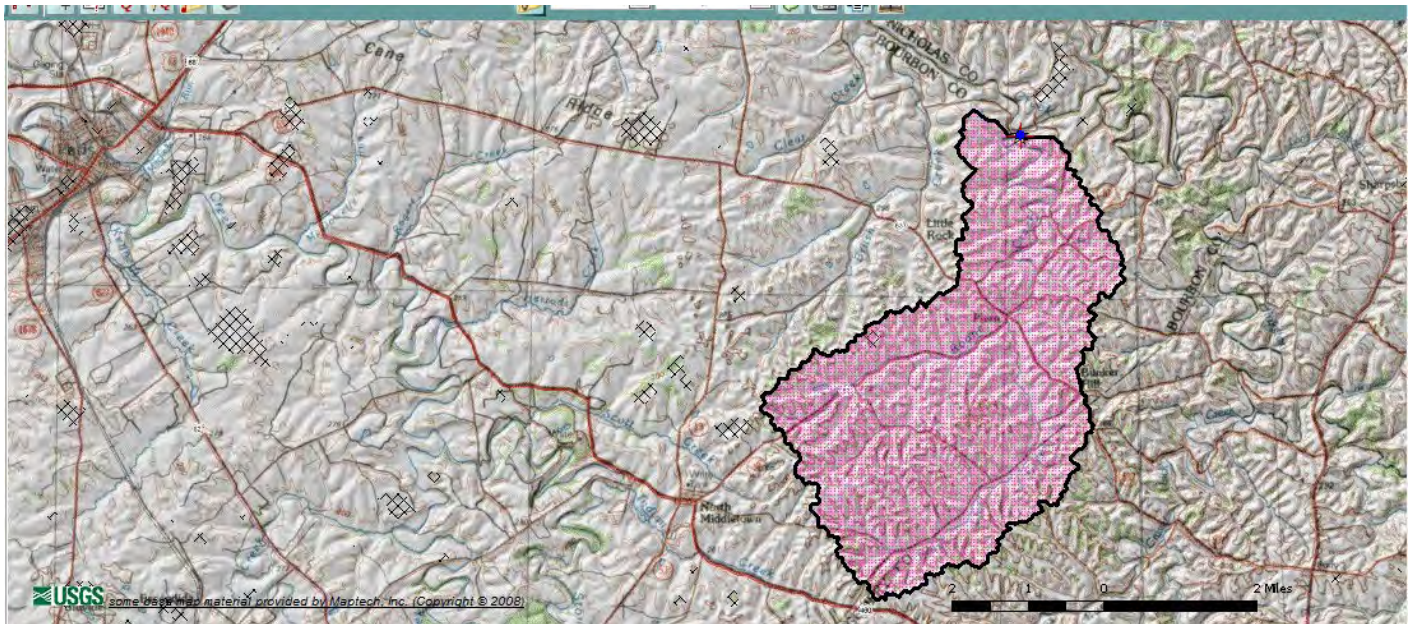




Figure 1-3

### Hinkston Creek Watershed Plan Implementation Bourbon County Tributaries Best Management Practice Locations

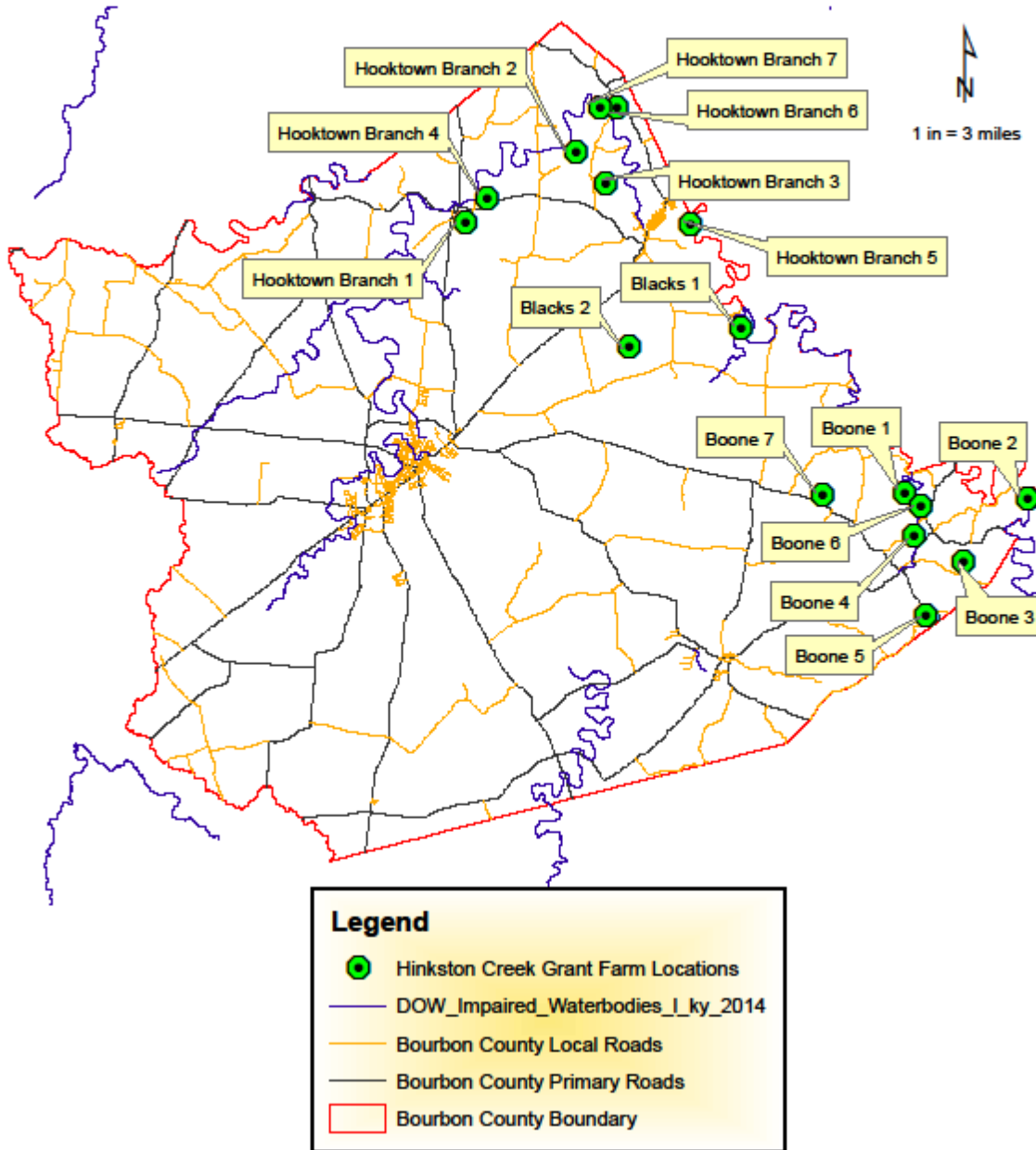


Table 2-1

HINKSTON CREEK WATERSHED PLAN  
IMPLEMENTATION BOURBON COUNTY  
TRIBUTARIES  
BEST MANAGEMENT PRACTICES INSTALLED DURING GRANT

STREAM DIRECTLY IMPACTED (FEET)	FARM LISTED BY WATERSHED	STREAM FENCING (FEET)	POND FENCING (FEET)	SINKHOLE FENCING (FEET)	CROSS FENCING (FEET)	NUMBER OF STREAM CROSSINGS	FEET OF PIPELINE (FEET)	NUMBER OF TANKS	HEAVY USE AREAS IN (SQ FEET)	CRITICAL AREA PLANTING (ACRES)	STREAM BANK PROTECTION (FEET)	NUMBER OF OBSTRUCTION REMOVAL
0	<a href="#">BLACKS 1</a>				3,600		7,055	5				
0	<a href="#">BLACKS 2</a>			545	2,405				1,200			
1,100	<a href="#">BOONE 1</a>	1,645					800	1	1,760			
4,500	<a href="#">BOONE 2</a>	9,430			900	2	6,257	5	1,200	0.75		
2,600	<a href="#">BOONE 3</a>	5,302	595		1,351		3,800	2				
275	<a href="#">BOONE 4</a>								2,120	0.75	256	
650	<a href="#">BOONE 5</a>		2,225		1,090		630	3	2,330	1.00		
1,172	<a href="#">BOONE 6</a>	1,172										
2,200	<a href="#">BOONE 7</a>	2,627	487				4,570	4	4,250	0.20		
3,900	<a href="#">HOOKTOWN BRANCH 1</a>	4,958			863	2	630	3	4,772			
1,525	<a href="#">HOOKTOWN BRANCH 2</a>	3,650	780		900	1	180	1	3,000			
2,000	<a href="#">HOOKTOWN BRANCH 3</a>	1,870	800		1,350	1	1,485	3	2,430	0.20		
0	<a href="#">HOOKTOWN BRANCH 4</a>								6,140			
4,600	<a href="#">HOOKTOWN BRANCH 5</a>	660	400		4,000		2,400	3	1,020			
3,500	<a href="#">HOOKTOWN BRANCH 6</a>	4,620				1	920	2		0.05		
100	<a href="#">HOOKTOWN BRANCH 7</a>									0.25		1
28,122	TOTALS	35,934	5,287	545	16,459	7	28,727	32	30,222	3.20	256	1
<b>5.33 TOTAL MILES OF STREAM DIRECTLY IMPACTED BY LIVESTOCK EXCLUSION AND STREAMBANK PROTECTION</b>												



## LITERATURE CITED

- (1) United States Department of Agriculture, National Agricultural Statistics Service, Kentucky Field Office, Kentucky Agricultural Statistics 2010-2011 Bulletin-County Rankings
- (2) Hinkston Creek Watershed Assessment and Management Plan – 2011
- (3) Department for Environmental Protection – Division of Water, Hinkston Creek Watershed Health Report
- (4) USDA-NRCS South Fork of the Licking River Rapid Watershed Assessment, October 2008
- (5) Using Remote Sensing Tools to Target Stream Protection and Wastewater Treatment BMPs in Rural Kentucky, Barry Tanning, Tetra Tech
- (6) Blacks and Boone Creeks Riparian Buffer Assessment & Opportunities for Improving Water Quality, Barry Tanning, Tetra Tech, 2011

**APPENDIX A.**

**FINANCIAL AND ADMINISTRATIVE CLOSEOUT**

Application Outputs:

Milestone	Date		
	<u>Expected Begin</u>	<u>Expected Completion</u>	<u>Actual Completion</u>
<i>Objective 1: General and administrative project activities conducted throughout the project period</i>			
Activity 1: Meet with 319 program staff to discuss project schedule and milestones	1/1/14	1/31/14	8/25/2016
Activity 2: Submit advance written notice of all educational events, field days, training presentations, workshops, etc	45 days prior	30 days prior	8/31/2015
Activity 3: Submit draft materials to NPS program staff for approval	45 days prior	30 days prior	4/20/2015
Activity 4: Submit annual report if requested by NPS program staff	Annually	Annually	10/28/2016
Activity 5: Submit project closeout report	12/31/16	2/1/16	11/17/2016
<i>Objective 2: Provide cost-share funding to implement Hinkston Creek Watershed-Based Plan BMPs.</i>			
Activity 1: Install livestock exclusion fencing along streams, address alternate water needs.	3/1/14	12/15/16	9/30/2016
Activity 2: Identify and secure cost-share support for streambank stabilization and revegetation.	8/1/14	11/15/16	9/30/2016
Activity 3: Implement improved pasture management, including stabilized stream crossings.	3/1/14	11/15/16	9/30/2016
Activity 4: Renovate pasture land to improve infiltration and reduce runoff.	3/1/14	11/15/16	Did not do renovation
Activity 5: Install grassed waterways to address pasture/cropland gullyng.	6/1/14	11/15/16	Did not install w/w's



Activity 6: Identify and secure cost-share support for malfunctioning septic systems when found	6/1/14	11/15/16	No septic system installed
Activity 7: Submit annual report to KDOC with load reduction calculations.	Annually	Annually	10/28/2016 with no calculations
<i>Objective 3: Implement awareness, education, and outreach activities (field days, workshops)</i>			
Activity 1: Publish newspaper materials that increase knowledge of water quality measures.	4/1/14	11/1/16	5/27/2015
Activity 2: Use signage to promote awareness of Hinkston Creek and watershed BMPs.	7/1/14	10/15/16	Moved sign on Jackstown Road 11/25/2015
Activity 3: Provide technical and other training for land managers and other key partners.	8/1/14	7/31/16	9/30/16
Activity 4: Conduct outreach presentations to producer, civic, school, and other groups.	3/1/14	9/30/16	9/30/16
Activity 5: Submit educational materials to KDOC for review and approval	45 days prior	As needed	None submitted

Budget Summary:

<b>Detailed Budget</b>				
Budget Categories (Itemize all Categories)	§319(h) (60% of funds)	Non-Federal Match (40% of funds)	TOTAL	Final Expenditures
Personnel	15,580	20,387	35,967	56,352
Supplies	5,000	0	5,000	1061
Equipment	0	0	0	0.00
Travel	1,000	0	1000	108
Contractual (BMPs)	230,222	140,148	370,370	353,457
Operating Cost	4000	10,000	14,000	15,359
Other	0	0	0	0
<b>TOTAL</b>	<b>\$255,802</b>	<b>\$170,535</b>	<b>\$426,337</b>	<b>\$426,336.67</b>

The Bourbon County Conservation District was reimbursed \$255,802. All dollars were spent; there were no excess project funds to reallocate.

**APPENDIX B.**

**Bourbon County Hinkston Creek Watershed  
BMP Implementation Plan**

**List of eligible BMP's:**

A list of eligible BMP's and items eligible for cost share follows:

**High Priority for Primary Goals**

<u><b>NRCS Practice Name</b></u>		<u><b>NRCS Practice</b></u>
<u><b>Code</b></u>		
Fence (for livestock exclusion)		382
Pipeline		
	516	
Tank		
	614	
Stream Crossing		576
Heavy Use Area Protection	561	
Filter Strip		393
Critical Area Planting		342
Grade Stabilization Structure	410	
Grassed Waterway		412
Riparian Forest Buffer		391
Sinkhole Protection		725
Streambank and Shoreline Protection	580	
Waste Storage Facility		313

**Lower Priority for Supportive Practices**

<u><b>NRCS Practice Name</b></u>		<u><b>NRCS Practice</b></u>
<u><b>Code</b></u>		
Diversion		362
Fence (for rotational grazing)		382
Livestock Shade Structure		717
Obstruction Removal	500	
Pasture and Hayland Planting		512
Pond		
	378	
Soil Heath Cover Crop		340
Spring Development		574
Well		
	642	

**Other items eligible for funding:**

Pumps - for transmission of water from ponds, wells, springs or streams to livestock tanks.

Ponds - must be fenced with a tank, or fenced with limited access area.

Chargers - for electrical fencing.

Extension of electrical service for water pumps - \$1,000.00 maximum.

Water meters for municipal water sources.

Moving existing heavy use areas away from creek (feeding areas must be at least 150' away from a body of water)

## **Description of the BMP selection process:**

Best Management Practices (BMP's) and technologies selected by the watershed Coordinator are oriented around reducing pathogens, nutrients, and sediment. The efforts will be centered primarily on developing the riparian areas, adoption of rotational grazing systems, the development of alternative water supplies or providing limited stream access to cattle, and the construction of well designed and sited animal feeding/waste storage areas. Other BMP's that address the target pollutants will be eligible for systems other than rotational grazing. All BMPs used in the Hinkston Creek Watershed Project will be selected by project staff in consultation with the Bourbon County Conservation District, based on the analysis conducted for the watershed management plan, a site evaluation, landowner/producer objectives, experience with similar BMPs, and other factors. NRCS staff will provide technical assistance in choosing, siting, sizing, and implementing BMPs.

## **Operation and Maintenance:**

The project will complement other state and federal funding programs in the watershed. Operation and maintenance agreements are required for both EQIP and State Cost Share Funding. The Bourbon County Conservation District will approve all BMP's with the condition that for each BMP implemented the landowner will commit to operate and maintain the BMP as intended according to this agreement.

## **Description of BMP Targeting Process:**

All BMPs used in the Hinkston Creek Watershed Project will be selected by project staff in consultation with the Bourbon County Conservation District, based on the analysis conducted for the watershed management plan, a site evaluation, landowner/producer objectives, experience with similar BMPs, and other factors. NRCS staff will provide technical assistance in choosing, siting, sizing, and implementing BMPs.

Solicitation for BMP sites will be conducted through a variety of means. Landowners with high priority sites (i.e., based on the watershed analysis conducted as part of the watershed planning process) may be approached by project staff or others to determine interest in BMP implementation on their property. BMP sites will also be solicited through other means, such as word-of-mouth solicitations and direct contact by conservation district board members, public and/or newspaper notices targeting landowners with high-risk conditions (e.g., eroded / unvegetated channel banks, lack of livestock control fencing separating pastures from streams, eroded pasture land, gullies), and presentations to groups of producers.

Upon completion of site assessments, the sites will be prioritized according to potential for water quality improvement as outlined in this targeting process.

1. Livestock exclusion and the development of alternate water sources will be the primary focus taking into consideration resource concerns identified by the Watershed Coordinator in order to improve water quality, meet the needs, and receive the cooperation from the participating farmer.



2. Proximity of the landowner to Hinkston Creek with highest priority to those sections which are listed as impaired including subwatersheds, Boone Creek and Blacks Creek. The causes of impairment listed by the Division of Water include siltation, organic enrichment, and nutrients, among other causes.
3. Cost Share contributions from other programs (EQIP, State Cost Share, and CRP).

### **Financial Plan of Action:**

This project will assist these farmers by offering them incentives to install demonstration BMP's. The cost share rate will be 75:25.

This will be accomplished by using "local match" from other state and county water quality cost share projects as well as the resources contributed through the Bourbon County Conservation District.

Existing state and federal programs will be utilized to the maximum extent possible with most of these paying 75% of the cost of the BMP's. Funds for this project will primarily be used to provide cost share for practices not covered by or available through existing programs.

**APPENDIX C.**

2014 HINKSTON CREEK WATERSHED PLAN IMPLEMENTATION PROJECT  
FFY 2012 SECTION 319(h) NONPOINT SOURCE IMPLEMENTATION GRANT  
APPLICATION RANKING FOR 1<sup>ST</sup> ROUND OF FUNDING

<b>RANKING CRITERIA</b>
Hinkston Creek Watershed - 10 points
Boone or Blacks Creek Watershed - 10 points
Drains into DOW Impaired Waterway - 10 points
Livestock Exclusion from Waterway - 1 point/100 feet
Livestock Exclusion from Pond - 5 points each
Streambank Protection (580) - 100 points/100 feet
Current Riparian Zone level of impact (1-low, 2-mod, 3-high, 4-very high) times 100
Current Primary Use is Pasture - 100 points

Approved by the Bourbon County Conservation District

Supervisor: *A. P. Garcia vice chair*

Date: *10-28-14*

**APPENDIX D.**

2014 HINKSTON CREEK WATERSHED PLAN IMPLEMENTATION PROJECT  
FFY 2012 SECTION 319(h) NONPOINT SOURCE IMPLEMENTATION GRANT  
APPLICATION RANKING FOR 2nd ROUND OF FUNDING

<b>RANKING CRITERIA</b>
Hinkston Creek Watershed - 10 points
Boone or Blacks Creek Watershed - 10 points
Drains into DOW Impaired Waterway - 10 points
Livestock Exclusion from Waterway - 1 point/100 feet
Livestock Exclusion from Pond, Spring, or Sinkhole - 5 points each
Streambank Protection (580) - 1 point/foot
Current Riparian Zone level of impact (1-low, 2-mod, 3-high, 4-very high) times 100
Current Primary Use is Pasture - 100 points
Additional Riparian Buffer above minimum - 10 points/acre
Obstruction Removal (500)- minor-0; moderate-100; major-200

Approved by the Bourbon County Conservation District

Supervisor: 

Date: July 20, 2015

## APPENDIX E.



Photo courtesy of and sign created by Faris Graphix

### **2014 Bourbon County Farm Field Day Tuesday, September 9<sup>th</sup>**

Color Point greenhouse operation  
Located at 1077 Cane Ridge Road  
Registration Begins at 4:00 pm

Bourbon County Goat Producers exhibit 4:00 pm  
Walking Tour inside Greenhouse Begins at 4:30 pm  
Rib eye Dinner to follow tour

#### **Tour Topics:**

Craig Daniel, Production Manager - Color Point facilities

Barry Tanning, Director of Applied Research, Tetra Tech - "Old School Conservation and Stewardship in the New Millennium"; Hinkston Creek Watershed in Bourbon County

Martha McFarland, Water Safety Instructor, American Red Cross - CPR demonstration

Ron Pelfrey, FSA Acting County Executive Director – Livestock Indemnity Program (LIP)

**Field Day Program Presented by:** Bourbon County Conservation District, Bourbon County Cooperative Extension Service, NRCS and FSA

**Thanks to our Sponsors for their support:** Bevins Motor Company, Blue Grass Stockyards, Central Kentucky AgCredit, Farm Bureau, Farm Credit Services, Kentucky Bank, Paris Stockyards, Traditional Bank, and Woodford Spears & Sons.

**For tour/meal reservations, please call by September 5th  
Bourbon County Conservation District at 859-987-2311, extension 3 or  
Bourbon County Cooperative Extension Service at 859-987-1895**





Photo courtesy of Bobby Shiflet, Frames on Main Gallery

## **2015 Bourbon County Farm Field Day Tuesday, September 29<sup>th</sup>**

Buknore Farm

Located at 1500 Cane Ridge Road

Registration Begins at 4:00 pm

Wagon Tour Begins at 4:30 pm

Rib eye Dinner to follow tour

### **Tour Topics:**

Chelsea McFarland Jacobson, MSc, Alltech Research Coordinator – New advances in Crop Science and Soil Health

Keith Stucker, District Supervisor with USDA/APHIS/Wildlife Services – Black Vulture Damage Management

Lockhart Hinkle, History of Buknore Farm

Hinkston Creek Watershed, presented by Valerie Tipton

**Field Day Program Presented by:** Bourbon County Conservation District, Bourbon County Cooperative Extension Service, Natural Resources Conservation Service and Farm Service Agency

**Thanks to our Sponsors for their support:** Bevins Motor Company, Blue Grass Stockyards, Central Kentucky AgCredit, Farm Bureau, Farm Credit Services, Kentucky Bank, Paris Stockyards, and Traditional Bank.

**For tour/meal reservations, please call by September 25th**  
Bourbon County Conservation District at 859-987-2311, extension 3 or  
[bourboncountyconservation@gmail.com](mailto:bourboncountyconservation@gmail.com)

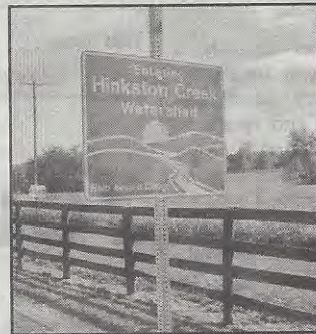
Newspaper Article published in The Citizen on May 27, 2015

# Funding Available For Farm Conservation Practices

Submitted By  
**VALERIE TIPTON**  
District Technician  
Bourbon County Conservation District

Funding is available in Bourbon County for farm conservation practices in the Hinkston Creek Watershed, including Blacks Creek and Boone Creek. Several projects are in the process of being installed impacting over 5 miles of streams in the watershed. Additional funds are available for high-priority conservation practices including fencing to keep cattle out of local creeks, development of alternate stock water supplies to keep cattle away from creek banks, stabilizing badly eroded stream banks, stabilization of gullies, and other practices that address soil erosion and manure runoff.

These funds are available for a limited time through the Hinkston Creek Project administered by the Bourbon County Conservation District and sponsored by the Kentucky Division of Conservation and Division of Water. This project is similar to the Kentucky Soil Ero-



This sign on Cane Ridge Road marks the Hinkston Creek watershed boundary which includes 80 square miles within Bourbon County. Sections of Hinkston Creek have been identified as impaired, meaning that the water is not clean enough to support activities like fishing, wading, and swimming.

sion and Water Quality Cost Share Program with design and construction for approved practices following the US Department of Agriculture NRCS Field Office Technical Guide. Cost share amounts will be based on a 75% project expense/25% landowner expense cost share rate. Livestock watering facilities may be approved for projects that include livestock exclusion fencing.

Applications for funding are available at the Bourbon County Conservation District office, located on the north side of Paris at 605 Millersburg Road. Funds are limited and will be allocated based on environmental benefit. With these funds, we have been tasked with improving water quality in Hinkston Creek and its tributaries. This is an exciting opportunity and we are very happy to work with local landowners to support conservation. The office will be open from 8:00 to 4:30 Monday through Friday. For more information, call 987-2311 extension 3 or contact us at [bourboncounty-conservation@gmail.com](mailto:bourboncounty-conservation@gmail.com).

Extension Newsletters:



July 2014



## FUNDING AVAILABLE FOR FARM CONSERVATION PRACTICES



Funding is now available in Bourbon County for farm conservation practices in the Hinkston Creek Watershed, including Blacks Creek and Boone Creek. High-priority conservation practices include fencing to keep cattle out of local creeks, development of alternate stock water supplies to keep cattle away from creek banks, stabilizing badly eroded stream banks, stabilization of gullies, and other practices that address soil erosion and manure runoff.

The Bourbon County Conservation District is now accepting requests for cost-share funding under the Hinkston Creek Project, which is sponsored by the Kentucky Division of Conservation and Division of Water. The project is similar to the Kentucky Soil Erosion and Water Quality Cost Share Program.

Design and construction for approved practices will generally follow the US Department of Agriculture NRCS Field Office Technical Guide. Cost share amounts will be based on a 75% project expense/25% landowner expense cost share rate. Livestock watering facilities may be approved for projects that include livestock exclusion fencing.

Applications for funding are available at the Bourbon County Conservation District office, located on the north side of Paris at 605 Millersburg Road. Funds are limited and will be allocated based on environmental benefit. The office will be open from 8:00 to 4:30 Monday through Friday. For more information, call 987-2311 extension 3 or contact us at [bourboncountyconservation@gmail.com](mailto:bourboncountyconservation@gmail.com).

Funds will be targeted to maximize the reduction of stream bank and pasture erosion, manure runoff, and overall water pollution in Hinkston Creek and its tributaries.

COOPERATIVE  
EXTENSION  
SERVICE



August 2014

**FUNDING AVAILABLE FOR FARM CONSERVATION PRACTICES**



Funding is now available in Bourbon County for farm conservation practices in the Hinkston Creek Watershed, including Blacks Creek and Boone Creek. High-priority conservation practices include fencing to keep cattle out of local creeks, development of alternate stock water supplies to keep cattle away from creek banks, stabilizing badly eroded stream banks, stabilization of gullies, and other practices that address soil erosion and manure runoff.

The Bourbon County Conservation District is now accepting requests for cost-share funding under the Hinkston Creek Project, which is sponsored by the Kentucky Division of Conservation and Division of Water. The project is similar to the Kentucky Soil Erosion and Water Quality Cost Share Program.

Design and construction for approved practices will generally follow the US Department of Agriculture NRCS Field Office Technical Guide. Cost share amounts will be based on a 75% project expense/25% landowner expense cost share rate. Livestock watering facilities may be approved for projects that include livestock exclusion fencing.

Applications for funding are available at the Bourbon County Conservation District office, located on the north side of Paris at 605 Millersburg Road. Funds are limited and will be allocated based on environmental benefit. The office will be open from 8:00 to 4:30 Monday through Friday. For more information, call 987-2311 extension 3 or contact us at [bourboncountyconservation@gmail.com](mailto:bourboncountyconservation@gmail.com).

Funds will be targeted to maximize the reduction of stream bank and pasture erosion, manure runoff, and overall water pollution in Hinkston Creek and its tributaries.





**May  
2015**

### **NEWS RELEASE: Funding available for farm conservation practices**

Funding is available in Bourbon County for farm conservation practices in the Hinkston Creek Watershed, including Blacks Creek and Boone Creek. Several projects are in the process of being installed impacting over 5 miles of streams in the watershed. Additional funds are available for high-priority conservation practices including fencing to keep cattle out of local creeks, development of alternate stock water supplies to keep cattle away from creek banks, stabilizing badly eroded stream banks, stabilization of gullies, and other practices that address soil erosion and manure runoff.

These funds are available for a limited time through the Hinkston Creek Project administered by the Bourbon County Conservation District and sponsored by the Kentucky Division of Conservation and Division of Water. This project is similar to the Kentucky Soil Erosion and Water Quality Cost Share Program with design and construction for approved practices following the US Department of Agriculture NRCS Field Office Technical Guide. Cost share amounts will be based on a 75% project expense/25% landowner expense cost share rate. Livestock watering facilities may be approved for projects that include livestock exclusion fencing.

Applications for funding are available at the Bourbon County Conservation District office, located on the north side of Paris at 605 Millersburg Road. Funds are limited and will be allocated based on environmental benefit. With these funds, we have been tasked with improving water quality in Hinkston Creek and its tributaries. This is an exciting opportunity and we are very happy to work with local landowners to support conservation. The office will be open from 8:00 to 4:30 Monday through Friday. For more information, call 987-2311 extension 3 or contact us at [bourboncounty-conservation@gmail.com](mailto:bourboncounty-conservation@gmail.com).