CURRY'S FORK WATERSHED

Project Final Report

Restoring Curry's Fork
Oldham County, Kentucky
04/13/2013 – 09/30/2016

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Submitted By:
Oldham County Fiscal Court
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Acknowledgements

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Table of Contents

List of Tables

List of Figures

Executive Summary

The primary purpose for the Restoring Curry's Fork Project (Grant #C9994861-10, occurring 04/13/2013 – 09/30/2016) was to work towards supporting designated uses and meeting water quality standards by accelerating implementation of priority (Tier 1) Best Management Practices (BMP's) and solutions identified in the Curry's Fork Watershed Plan (SAI, 2012). Project goals for the Curry's Fork Watershed, in Oldham County, Kentucky, included maintaining a Watershed Coordinator, marketing the watershed plan, developing and implementing outreach, education and training programs, implementing onsite wastewater BMPs, conducting a riparian revegetation program, and expanding water quality-enhancing landscaping practices. The last year of the grant cycle, the Internal Project Team completed a strategic reassessment of project priorities and developed a budget revision to enable more funds to be targeted toward on-site wastewater BMPs. All success criteria were met for the approved revised objectives.

Key accomplishments made possible by the grant included the following:

- As the keystone requirement for BMP implementation, the Watershed Coordinator position was maintained and upgraded to employee status.
- The Internal Project Team guided the comprehensive approach of the Project.
- The Project provided training, conference, and workshop participation for staff and elected officials on topics such as "Green Infrastructure" and "Watershed Basics."
- The Project marketed the Watershed Plan through group presentations, one-on-one contacts, and the re-engagement of a Technical Advisory Committee.
- The Watershed Coordinator implemented an education and awareness program, reaching over 700 participants directly and many more indirectly. Efforts were highlighted by two innovative public meetings, video public service announcements, and a new social media program; coupled with more traditional strategies, such as printed media articles, event outreach, and school and organizational meeting presentations.
- To implement the Onsite Wastewater System Initiative, the Project hosted one workshop, educating 38 residents in the target high priority area. A total of 10 onsite wastewater system pumpouts and 1 system replacement were completed with workshop participants due to the help of grant incentives.
- A de-emphasized riparian revegetation initiative resulted in one riparian revegetation planting project, as well as far-reaching education efforts from social and printed media.
- Water quality enhancing landscaping practices were emphasized at two workshops co-hosted by the Project, serving over 60 residents.

The key conclusions of the Project were to:

- maintain the Watershed Coordinator, Technical Advisor, and Internal Project Team;
- shift the Project focus from education to BMP implementation;
- utilize existing outreach infrastructure to reduce costs and increase reach;
- prioritize onsite wastewater repair and installation projects over routine maintenance projects both in funding incentives and timing; and
- reassess the riparian revegetation initiative approach to maximize water quality benefits.

Introduction & Background

The primary purpose for this project was to work towards supporting designated uses and meeting water quality standards in the Curry's Fork watershed by accelerating implementation of Best Management Practices (BMPs) and solutions identified in the Curry's Fork Watershed Plan (WP) (SAI, 2012). At the time of project application, the main stem of Curry's Fork did not meet water quality standards for Primary Contact Recreation (PCR) (nonsupport) and Warm Water Aquatic Habitat (WAH) (partial support) (KDOW, 2010). The specific objective of the project was to improve and protect water quality in the Curry's Fork Watershed by focusing implementation activities on priority (Tier 1) BMPs (SAI, 2012). Project goals included maintaining a Watershed Coordinator, marketing the watershed plan, developing and implementing outreach, education and training programs, implementing onsite wastewater BMPs, conducting a riparian revegetation program, and expanding water quality-enhancing landscaping practices.

The Kentucky Division of Water (KDOW) contracted funding to the Oldham County Fiscal Court (Fiscal Court) to develop and begin implementation of a WP as part an earlier (FFY2006) Clean Water Act Section 319(h) Grant awarded by the United States Environmental Protection Agency (USEPA) to the state. Extensive water quality monitoring was conducted to develop the comprehensive WP. Water quality monitoring identified areas of concern and areas in need of restoration and protection through a rigorous and in-depth data collection program which included geomorphic assessments, biological assessments, habitat assessments, bacteria samples, and physiochemical sampling during dry and wet conditions. To address the challenge of assessing multiple data sets from numerous monitoring approaches, a Water Quality Data Analysis Team (WQDAT) was formed, comprised of aquatic biologists, engineers, watershed managers, total maximum daily load developers, nutrient specialists, and watershed modelers. The WQDAT used its expertise to provide data summaries, evaluate the plethora of data, and identify critical protection and restoration areas with regard to PCR and WAH use support designations.

In addition to the WQDAT, the Curry's Fork Watershed Technical Advisory Committee (TAC) was formed to engage local agencies and entities with developing the WP, to help identify pollutant sources based on water quality data, and to select BMPs appropriate for the Curry's Fork Watershed. The Curry's Fork TAC was formed in August 2008 and is comprised of over 70 members from more than a dozen local agencies and organizations. During development of the WP, the TAC convened frequently to discuss project goals, sampling and assessment results, potential pollutant sources, collaboration between agencies, and BMP prioritization. Curry's Fork residents were also actively engaged in developing the WP via public meetings. Watershed objectives, activities, and solutions were reviewed by residents to identify what solutions residents saw as helpful and that they wanted to be a part of, versus those that they didn't.

The insight, expertise, and local knowledge provided by the WQDAT, TAC and watershed residents were invaluable in the development of the WP. Their input allowed for the creation of a prioritized list of cost-effective BMPs for each subwatershed within Curry's Fork Watershed. The comprehensive WP was approved by the Kentucky Division of Water in March 2012, and

implementation of the plan was initiated with limited FFY2006 grant funds and continued with FFY2010 grant funds.

Materials & Methods

The Curry's Fork watershed is located in Oldham County, Kentucky and is a tributary of Floyds Fork (Figure 1. Location of Curry's Fork Watershed: Oldham County, Kentucky (Strand Associates, 2012) Oldham County Fiscal Court, Grant #C9994861-10). The watershed covers approximately 29 square miles (HUC 051401021801) and is comprised of four subwatersheds: North Curry's Fork, South Curry's Fork, Asher's Run, and Curry's Fork (mainstem) (Figure 2. Subwatersheds Within Curry's Fork Watershed: Oldham County, Kentucky (Strand Associates, 2012) Oldham County Fiscal Court, Grant #C9994861-10). The Curry's Fork watershed is rural suburban in nature, with the highest concentrations of development in and around the City of La Grange.

Methods to achieve the following project goals are discussed individually below: Watershed Coordinator, marketing the watershed plan, developing and implementing outreach, education and training programs, implementing onsite wastewater BMPs, conducting a riparian revegetation program, and expanding water quality-enhancing landscaping practices.

Watershed Coordinator: Providing support for a Watershed Coordinator (Coordinator) was a critical component of this project. The Curry's Fork Coordinator was maintained as a part-time, contractual position through mid-February 2015. In March 2015, the Coordinator was institutionalized as a part-time Oldham County Fiscal Court employee. A position recruitment flyer was developed and extensive email and one-on-one recruitment efforts were conducted in order to fill the vacant position. Project partners participated in the interviews and selection process. A new Coordinator, selected by the multidisciplinary project team, was hired in mid-May 2015 and was maintained through the end of the project period. Employee performance reviews were performed for the WC.

The existing Curry's Fork Watershed Internal Project Team (Team), comprised of the Oldham County Engineer, an independent Watershed Technical Advisor (Advisor) and the Coordinator provided oversight, guidance and support for implementing the project. Detailed meeting agendas were developed for each Team meeting; the majority of the meetings were conducted via conference call.

Training opportunities were selectively supported to ensure that the Coordinator, as well as the County Engineer and Advisor, were utilizing the most current and successful watershed management techniques and approaches.

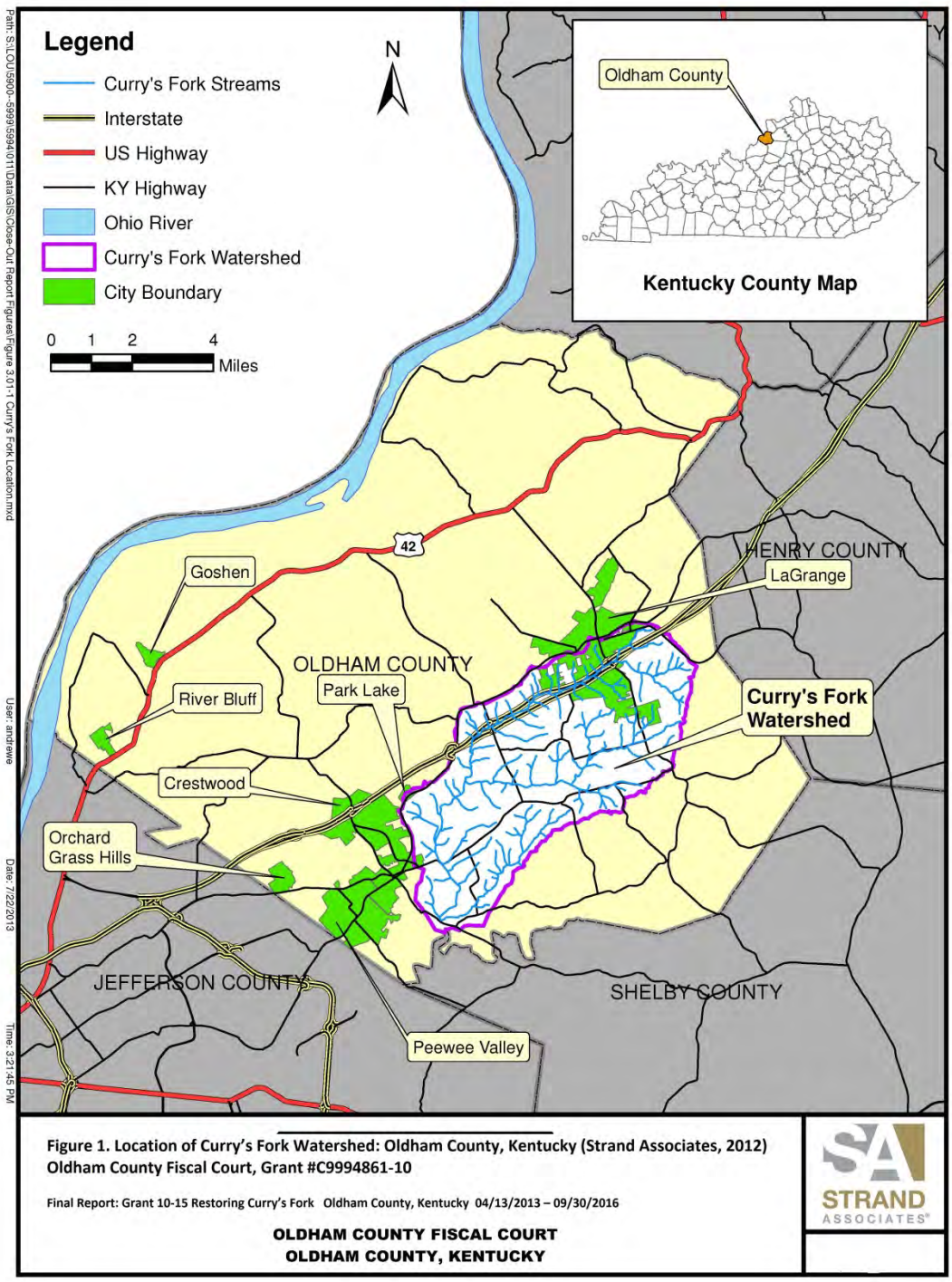

Figure 1. Location of Curry's Fork Watershed: Oldham County, Kentucky (Strand Associates, 2012) Oldham County Fiscal Court, Grant #C9994861-10

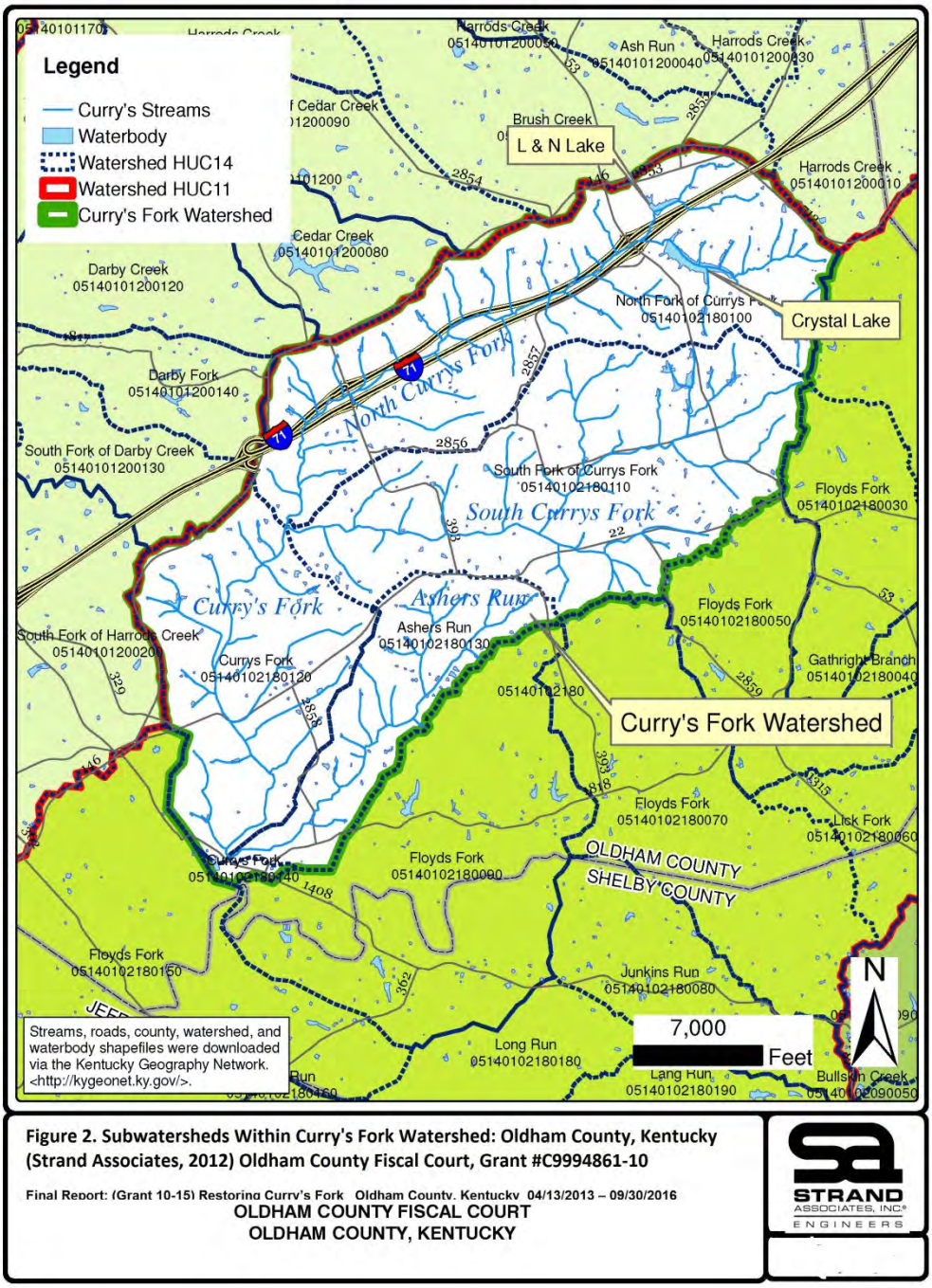

Figure 2. Subwatersheds Within Curry's Fork Watershed: Oldham County, Kentucky (Strand Associates, 2012) Oldham County Fiscal Court, Grant #C9994861-10

Final Report: (Grant 10-15) Restoring Curry's Fork Oldham County, Kentucky 04/13/2013 – 09/30/2016

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Figure 2. Subwatersheds Within Curry's Fork Watershed: Oldham County, Kentucky (Strand Associates, 2012) Oldham County Fiscal Court, Grant #C9994861-10

Marketing the Watershed Plan: The Coordinator utilized numerous opportunities to raise awareness and visibility of the WP. The Coordinator identified the target audience(s) within community leaders and watershed residents. Materials were vetted by the Internal Project Team and approved by KDOW before use. The primary avenues for marketing the Watershed Plan were presentations to both small and large groups, one-on-one contacts and re-engaging the Curry's Fork Watershed TAC which also acted has the planning team for the Amazing Watershed Challenge.

Education and Awareness Programs: The Coordinator developed, participated, and implemented numerous watershed education and awareness programs. The Coordinator worked with partnering organizations such as Natural Resources Conservation Service, Oldham County Cooperative Extension, the Health Department, and the Oldham County Environmental Authority to build on existing outreach and education programs and target them in Curry's Fork Watershed. Decisions about where to focus efforts and resources were made in conjunction with the Team.

The Coordinator developed all necessary educational material for events; drafts were submitted to the Team and KDOW for review and comment/approval. Where available and appropriate, the Coordinator used educational materials that had been previously produced by the USEPA, KDOW, academia, the WP, or other reputable sources approved by KDOW Nonpoint Source staff, for the watershed events. The Coordinator worked with Fiscal Court to determine appropriate dates and locations for the events. Mailings and advertisements were approved in advance by KDOW and were geared toward the target audience. The Coordinator worked with the Team, shareholder organizations, and KDOW staff to determine the best method to present the educational materials based on the target audiences.

Multiple avenues were utilized to effectively implement and maintain education and awareness programs. The Coordinator participated in events sponsored by project partners, as well as collaboratively developed and implemented new education and awareness initiatives. Education and outreach avenues utilized included: televised public service announcements, presentations, displays/booths, community events, workshops, meetings, newspaper and newsletter articles, and social media posts.

Elected and Appointed Officials Seminars: The educational seminars for elected officials, planners, and planning commissioners were planned similarly to the public education and outreach programs. The Coordinator developed material for the event for review and approval by KDOW and discussed seminar content with the Team. Advertising consisted of coordinating schedules and encouraging participation.

In addition to the trainings, the Coordinator encouraged local elected officials and leaders to attend regional conferences or workshops on watershed management topics. The Coordinator presented updates to Fiscal Court on a regular basis.

Citizen Watershed Group: Formation of a citizen-based watershed group has been encouraged as part of the Curry's Fork watershed public education and outreach efforts. Contact information for potential citizen group representatives was obtained via sign-in sheets at events and via a mailing list application that links with the Curry's Fork social media page. The Coordinator secured a volunteer Graphic Designer who developed a logo for Curry's Fork.

Onsite Wastewater Initiatives: The Coordinator began addressing onsite wastewater issues in Curry's Fork by first establishing a close working relationship with the County's Health Department staff. The Curry's Fork Watershed Onsite Wastewater System Workshop and Maintenance Best Management Practices Implementation Plan was developed and approved by KDOW (Appendix B.2). Through collaborative efforts, the Oldham County Fiscal Court and the Health Department hosted an Onsite Wastewater Workshop. Workshop participation was incentivized by offering a chance for homeowners to win one of three monetary reimbursements to maintain or repair their onsite wastewater system on their property.

The Onsite Wastewater Workshop targeted the priority pathogen reduction areas identified in the Watershed Plan (SAI, 2012) as upper Asher's Run and middle North Curry's Fork subwatersheds. The target audience was residents who live in low-lying areas and in riparian corridors of these two watersheds. Residents were contacted via mailings that were copied to KDOW for notification. Workshop participants were incentivized to attend by including a chance for homeowners to win one of three monetary reimbursements to maintain or repair the onsite wastewater system on their property. Advertising for the workshop was conducted via direct mail post cards to selected homeowners. A second Onsite Wastewater Workshop was planned; however, after the Team evaluated the results of the first workshop, an alternate plan was developed to put more resources into remediating the onsite wastewater issues identified during the first workshop. The alternate plan was reviewed and approved by KDOW via a Project Budget Revision.

In lieu of the second workshop, an Onsite Wastewater Cost-Share Program was developed and implemented for addressing the onsite wastewater maintenance, repair, or installation needs identified during previous efforts. The Coordinator reviewed other septic cost-share programs in Kentucky and gathered lessons-learned and advice from various sources. The Coordinator worked closely with Fiscal Court administrative staff and the Oldham County Health Department to produce an internal program workflow. The repair/replacement ratio was 75% by the program and 25% by the homeowner. The Coordinator created multiple letters and forms pertinent to the program, using examples of other programs as templates with permission. Each workshop participant was notified about the program through e-mail and postal service based on the information they provided.

In addition to the onsite wastewater workshop and financial assistance, the original Plan of Work for this project called for a septic survey to be developed and implemented in order to improve identification of failing systems. This action item was vetted by the Team (partially completed) and suspended pending evaluation of the first Onsite Wastewater Cost-Share Program (see Results and Discussion).

An evaluation of the need and feasibility of an Oldham County onsite wastewater authority was addressed via an Internal Project Team meeting and a technical onsite wastewater discussion at the Curry's Fork Watershed TAC meeting.

Riparian Revegetation Program: Work was guided by a 2012 BMP Implementation Plan (Appendix B1) that was developed under a previous grant and approved by KDOW. Residents in upper South Curry's Fork subwatershed who had riparian property were contacted via letter and given an opportunity to participate in a riparian revegetation program. An application process was used in order to evaluate merit and make selections. Applicants were evaluated based on the condition of the stream bank on their property, the ability to mitigate erosion with additional vegetation, the owners' commitment to the project, the expected longevity of their commitment, visibility of the project, and the ability of the property owner to help with planting and maintenance. Grant funds were used to purchase plants, and installation took place with homeowner volunteer labor overseen by the Coordinator.

Water Quality Enhancing Landscaping Practices: Oldham County Fiscal Court held two workshops geared toward educating Curry's Fork Watershed residents about what landscaping activities they could adopt on their own property to improve water quality.

Fiscal Court partnered with Oldham County Cooperative Extension Office and the local public library, to host a rain garden workshop in 2013. A postcard was mailed to watershed residents to advertise the event.

In 2015, Oldham County Fiscal Court partnered again with Oldham County Cooperative Extension, and also with Kentucky Waterways Alliance to offer the workshop "Putting Nature to Work in Your Landscape." The event was promoted through KDOW NPS staff-approved flyers, a short promotional video aired on local television, online social media, Court website, sister agency e-mail list-serves, local event websites, and various written media sources. The goal of the workshop was to educate homeowners about rain gardens, stream buffers, watersheds, and non-point source pollution in general.

Results and Discussion

Watershed Coordinator: The Coordinator's primary focus was to implement the Curry's Fork WP through protection and restoration initiatives, community outreach and education, and partnerships with local government entities. The Coordinator was the link between watershed activities, watershed residents, and the agencies and organizations working within the watershed. The Coordinator was the driving force in organizing all watershed activities, acting as a technical water resource, and producing a wide variety of deliverables (Appendix C. Printed Project Deliverables).

In addition to the tangible products and deliverables discussed above, the Coordinator also pursued alternative funding for implementing the Watershed Plan and frequently met one-on-

one and in small groups with project partners to further the goals of the WP. The Coordinator worked with the Oldham County Grant Writer and non-profit organizations to identify potential grants for Curry's Fork. A Green Infrastructure Technical Grant was developed and submitted to the USEPA, but ultimately was not funded. The Coordinator successfully secured $2,000 in local sponsorship for outreach/education initiatives. The WC identified potential match opportunities within the watershed. One-on-one and small group discussions concerning reducing nonpoint source pollution were frequent occurrences. By way of an example, the County Engineer and Coordinator have communicated and met with Oldham Reserve representatives on several occasions to discuss the planned 1000-acre development in the Curry's Fork watershed. Discussion topics included planning for enhanced nonpoint source pollution controls, sewer and water coordination, post-develop BMPs, and 401/404 mitigation.

The Coordinator was not maintained during the entire length of the Project. The first Coordinator was employed via a contractual arrangement from the beginning of the Project period through mid-February 2015. The second Coordinator was employed as a County employee from mid-May 2015 through the end of the project period. This resulted in a gap of three months without a Coordinator and several months of watershed plan orientation and training for the new Coordinator. As a result, several project activities had to be delayed and several initiatives modified or suspended. These modifications were approved by the Kentucky Division of Water in the form of a Project Budget Revision.

The Team, comprised of Oldham County Engineer, the Coordinator, and the Advisor met frequently (semi-monthly to quarterly). The Internal Project Team was highly successful and provided the necessary support and checks-and-balances to ensure project activities and commitments were being met throughout the grant period. Frequent contact and detailed agendas enabled both administrative and technical issues to be vetted and resolved.

In order to stay current with evolving watershed management strategies and BMP recommendations, the Coordinator, County Engineer, and Advisor participated in applicable and pertinent training, conferences, and symposia. Specially, Team members participated in the Annual Kentucky Water Resources Symposia (the Curry's Fork Project was presented in 2014), Kentucky Waterways Alliance Conference, Post-Construction Inspector Training, Engaging Elected Officials workshop, Building Community Support for Environmental Stewardship webinar, Agriculture Environmental Bootcamp, Louisville MSDs Green Infrastructure Field Day, Kentucky Wildlife Habitat Symposium and two Watershed Coordinators Meetings hosted by KDOW.

Oldham County Fiscal Court provided office space and supplies for the Curry's Fork Coordinator throughout the project period.

Success was defined as retaining a Coordinator throughout 80% of the duration of the grant, which was successfully completed.

Marketing the Watershed Plan: The Coordinator geared WP marketing efforts toward local partners, officials, and citizens in order to bolster support for the objectives, solutions, and

BMPs identified in the WP. The Coordinator accomplished this through small and large group presentations, one-on-one contacts, and engagement of the TAC. The WP was presented at the Kentucky Stormwater Association's Annual Meeting, Oldham County Rotary Club (twenty-five in attendance), Oldham County Cattlemen's Association (twenty-eight in attendance), Oldham County Environmental Authority Board of Directors meeting (five in attendance), and Oldham County Fiscal Court meetings (eight magistrates and county judge in attendance, as well as aired repeatedly on local television).

One-on-one contacts with community leaders proved to be a critical avenue for marketing the WP. The implementation goals of the WP were furthered by attending meetings of other organizations which led to collaborative discussions and planning with community leaders. The Coordinator participated in Oldham County Soil Conservation District Meetings and met with staff at the Oldham County Soil and Water Conservation District to coordinate and collaborate on BMP implementation efforts. The Coordinator also met with Oldham County Environmental Authority representatives regarding partnership, coordination, and implementing the WP. The Coordinator worked with the County GIS Coordinator to make a Curry's Fork Watershed layer available to all OCFC employees with GIS capabilities. The WC met with Harrods Creek Watershed board member and Eco-Tech consultant to look for collaboration opportunities, discuss lessons learned, etc. The WC reached out to Yew Dell Botanical Garden, Limestone Land Trust, and local business owners for potential collaboration. The WC met with County Planner, LaGrange Mayor, and Public Works employee to discuss opportunity for the City to receive Curry's Fork riparian area parcel of property.

Additionally, the Curry's Fork Watershed TAC was reconvened in early 2016. This multi-agency, multi-disciplined TAC actively participated in guiding the development of the WP. The TAC was reconvened in order to provide guidance and input concerning the water quality projects being implemented and planned by Fiscal Court. Input from the TAC helped to ensure a high level of coordination and collaboration as well as to ensure that the water quality projects were complimentary with other organization's objectives and initiatives. TAC engagement is vital to successfully implementing the WP and improving the water quality of Curry's Fork.

The original Plan of Work for this project identified the Curry's Fork website as a tool for marketing the WP. The Team re-evaluated this approach and determined that the website was not a viable WP marketing tool, but rather should be used, along with social marketing posts, as an education and outreach platform (see "Education and Awareness Programs" below).

Success was defined as the Coordinator conducting at least two small and one large group presentation per year on the WP, the re-engagement of the Curry's Fork Watershed TAC, and the maintenance of the Watershed Webpage. Although all success criteria were met, the Coordinator shifted the focus from the webpage to social media.

Education and Awareness Programs: The Coordinator developed and implemented watershed education and awareness programs for residents within Curry's Fork to raise awareness of and promote better watershed management. The target audience for the education and awareness programs was residents within the Curry's Fork Watershed. The Coordinator continued to

participate in community events where opportunities were available to provide watershed and BMP education materials and technical assistance. Varied avenues were utilized including workshops, public meetings, presentations, displays, social media posts, and televised public service announcements.

Highlights of public education and outreach programs are bulleted below:

- The Coordinator collaborated with Fiscal Court's Video Department to produce or modify and broadcast six Public Service Announcements tailored specifically to Curry's Fork watershed. These were aired on a local television station on a regular basis throughout the grant cycle.
- Several school programs addressed a portion of Kentucky Education Reform Act's goal 2: "Students shall develop their abilities to apply core concepts and principles from . . . the sciences . . . to what they will encounter throughout their lives" (KDE, 2015). Elementary and intermediate students in Curry's Fork Watershed were the target audience. By showing students how human actions affect the aquatic ecosystem, the Coordinator shared lessons aimed at science academic expectation 2.3: "students identify and analyze systems and the ways their components work together or affect each other" (KDE, 2015). These goals were addressed by a. demonstrating the concept of interdependent relationships in ecosystems between animals (including humans), plants, and their environment" and b. "communicating solutions that will reduce the impact of humans on the water system and other living things" (KDE, 2015). The following school education programs were completed:
  - WC presented water quality/watershed information to Buckner Elementary art classes reaching approximately 150 students.
  - Coordinator acted as resource for watershed activity at E. Oldham Middle School, reaching approximately 60 students and 2 teachers.
  - Coordinator participated in Children's Earth Day Event in 2014 and 2016 with Oldham County Environmental Authority, Oldham County Cooperative Extension, Oldham County Conservation District, Kentucky Waterways Alliance, Oldham Ahead, Biohabitats, Ecotech, and others. Curry's Fork Watershed booth was set up and staffed by the Oldham County Engineer in 2014 and the Coordinator in 2016.

- The Coordinator developed and implemented the Amazing Watershed Challenge. The target audience was Curry's Fork Watershed families. Roughly 40 people participated. The event took place on a farm and pitted family and organization teams against each other in a contest to see who learned the most at various information booths/stations. Support and recruitment for the event was extensive and included Floyds Fork Environmental Association, Pewee Valley Boy Scout troop, Home School Co-op, Oldham Ahead, Oldham County Parks Department, Oldham County Environmental Authority, Oldham County Conservation District, Oldham County Cooperative Extension and Kentucky Waterways Alliance.
- A Curry's Fork Watershed public meeting, Curry's Fork-fest was hosted in May 2016. The meeting was advertised through social media, community calendars, newspaper, video and printed materials (county-wide "What's Happening" newsletter and local newspaper). The meeting included music entertainment, a visit from Ollie Otter, a giant Curry's Fork Watershed map, partner informational tables, and three presentations: Water Quality and Watershed 101, Watershed Plan Overview, Watershed Plan

Implementation Initiatives. Additionally, the WC developed an informational flyer "How safe is our water?" based on 2012 KDOW data that was shared with the public at the meeting. Forty-eight people attended the event.

- The Coordinator initiated a social media campaign intended to gain a far reach in education. It was hoped that it would educate citizens about the watershed, the WP, water quality, and project activities. The campaign published at least 3 posts per week from its inception through the end of the grant cycle. A volunteer Graphic Designer created a logo for Curry's Fork Watershed that was used extensively on social media and other marketing efforts.
- An article about riparian buffers was included in the "What's Happening" newsletter, delivered to every residence in the County.
- The Coordinator submitted an article published in the Kentucky Division of Water Salt River Basin Newsletter "In the Flow".

The original project Plan of Work included installing creek crossing, or watershed boundary, signs within the watershed. In 2015, the Team performed a strategic reassessment of project priorities and developed a budget revision that enabled more funds to be targeted toward onsite wastewater BMP implementation. As a result of the strategic reassessment, creek crossing signage was postponed under this grant, but will be completed under a subsequent grant.

Success was defined as the watershed hosting at least one watershed workshop and/or public meeting per year, as well as participating in at least one event hosted by another organization. Success criteria were met for each year.

Elected and Appointed Officials Seminars: The Coordinator organized three educational training events for elected and appointed officials as well as county planning and development staff. In 2013, a Green infrastructure (GI) tour was conducted for county leaders, planning staff, engineers, and developers. Twenty-five people participated in the tour to see first-hand and to learn about regional examples of GI. Two educational seminars were conducted in 2014: (1) forty individuals participated in the in-service training on post-construction ordinance and use of Green Infrastructure in Oldham County development areas, and (2) a water quality, watershed educational seminar was conducted for seven magistrates, the County Judge Executive, and the Deputy Judge. The Elected Officials Seminar slated for 2015 was not implemented due to the lapse in WC retention, but one magistrate attended a watershed basics workshop with grant funding and spoke about it at a Fiscal Court meeting. The success criteria goal of holding at least three in-service trainings in the grant cycle was met.

Citizen Watershed Group: From the workshops, events, and education and outreach efforts, the Coordinator worked to foster the formation of a citizen-based Curry's Fork Watershed group. One-on-one contacts with concerned citizens at events, coupled with contact information sign-in sheets have enabled the Coordinator to begin to identify key stakeholders. The Coordinator established a social media page for the Curry's Fork watershed and frequently posted relevant water quality, watershed, and Curry's Fork-specific information. A mailing list application enabled the WC to obtain email addresses from interested citizens in the watershed who visited the social media page. As a result of social media efforts, online conversations are being

initiated and additional key stakeholders are being identified. The WC obtained a volunteer graphic designer to develop a logo for Curry's Fork. The logo was introduced in early 2016 and the Coordinator began using the logo for Curry's Fork watershed events and publications. The hope is that the logo will foster recognition of the Curry's Fork's efforts and encourage citizens to play a role in a watershed group. While a citizen-based watershed group was not formed during the timeframe of this project, significant progress was made.

Success was defined as holding at least two public meetings in the course of the grant cycle, which was met.

Onsite Wastewater Initiatives:

The Coordinator and the Oldham County Health Department collaborated to host an Onsite Wastewater Workshop in 2014. The target audience was those residents who live in the low-lying and riparian areas of upper Asher's Run and the middle portion of North Fork subwatersheds; high priority pathogen-reduction areas identified in the Watershed Plan. The workshop served to promote onsite wastewater system maintenance and operation through education, training, and limited financial assistance. Thirty-eight homeowners participated in the workshop. Although only three were planned, four onsite wastewater pumpouts were completed immediately after the workshop to "winners," with the program paying for up to $500 for each in 2014. It was decided not to conduct a second workshop, but to focus instead on assisting more 2014 workshop attendees.

In the 2016 Onsite Wastewater Cost-Share Program, six onsite wastewater pumpouts and minor repairs were completed, while one major replacement project was part of the program, and was completed in July, due to its complexity. Table 1 and Figure 3 provide details and locations of onsite wastewater pumpouts (and minor repairs), as well as system replacements. All participants signed maintenance agreements (including septic "dos and don'ts") as well as statements that they are aware of and will maintain their system according to guidelines expressed in the generic Groundwater Protection Plan (401 KAR 5:037).

Table 1. Curry's Fork Watershed BMP Installations: Oldham County Fiscal Court, Grant Number C9994861-10 (04/13/2013 – 09/30/2016)

Latitude	Longitude	House #	Street	Street Type	Zip Code	BMP Type	Date of Installation
38.357512	-85.422647	4118	SUWANNEE	DR	40014	Onsite Wastewater System Pumpout	4/17/2014
38.364595	-85.407713	4007	EVERGREEN	RD	40014	Onsite Wastewater System Pumpout	4/17/2014
38.359308	-85.411745	2608	CURRY	DR	40031	Onsite Wastewater System Pumpout	5/6/2014
38.354914	-85.438381	3817	CARRIAGE POINTE	DR	40014	Onsite Wastewater System Pumpout	6/11/2014
38.372430	-85.354203	3410	SHADY DELL	CT	40031	Onsite Wastewater System Pumpout	5/23/2016
38.332076	-85.407750	5704	ROSE WOOD	RD	40014	Onsite Wastewater System Pumpout	5/23/2016
38.332878	-85.410591	5603	CREEKSIDE	DR	40014	Onsite Wastewater System Pumpout	5/28/2016
38.350875	-85.389036	5100	BROOKSWOOD	RD	40014	Onsite Wastewater System Pumpout	6/2/2016
38.357641	-85.406241	4601	EVERGREEN	RD	40031	Onsite Wastewater System Pumpout	6/11/2016
38.358534	-85.410930	4902	MEADOW CREEK	CT	40031	Onsite Wastewater System Pumpout	6/20/2016
38.384956	-85.395436	2201	FORREST PARK	DR	40031	Onsite Wastewater System Replacement	7/29/2016
38.368682	-85.382682	3814	WIANO	DR	40014	Riparian Revegetation	8/27/2016

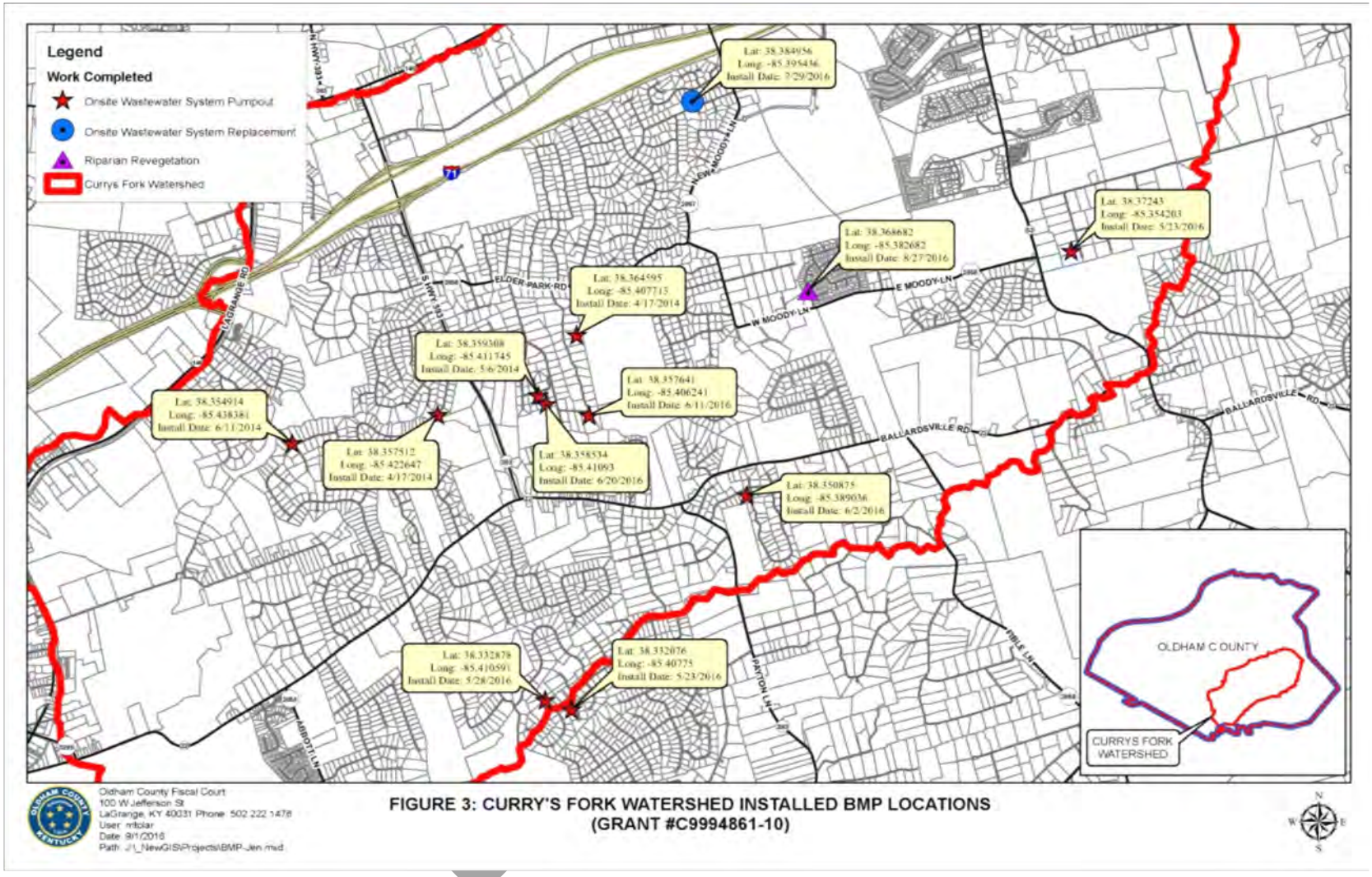

Figure 3. Curry's Fork Watershed Installed BMP Locations (Grant Number C9994861-10)

Working with some of these same partner organizations, the Coordinator and County Engineer evaluated the need for a septic system survey to improve the identification of failing systems for replacement, repair, or elimination. Because 2014 onsite wastewater efforts were targeted in high priority pathogen restoration areas and there were still many interested workshop attendees, the need for further outreach was deemed unnecessary for 2016 efforts. However, in the future BMP targeting may be warranted when working in medium and low priority pathogen restoration areas, if the water quality benefit is high.

The need and feasibility of an Oldham County onsite wastewater authority was formally discussed at a special topic Team meeting. Although the idea may prove to be a viable option down the road, it was tabled pending further investigation and discussions with the Oldham County Health Department and County Judge Executive.

Success was defined as conducting at least one onsite wastewater workshop, providing financial assisting for at least three onsite wastewater pumpouts for workshop participants, investigating the need for a septic survey, and assessing the feasibility of an onsite wastewater authority. All criteria were met.

Riparian Revegetation Program: Areas identified in the Watershed Plan (SAI 2012) as high-priority for riparian revegetation were targeted under this initiative: the upper South Curry's Fork subwatershed. Four homeowners responded to the initial mailed invitation; additional properties were identified for follow-up contacts with homeowners via reconnaissance. The Advisor clarified priority areas for re-vegetation efforts to the Coordinator for targeting purposes. Through the prioritization process, two of the interested homeowners in the target subwatershed were selected to participate. Further action was put on hold pending the hiring of a new Coordinator. The Team completed a strategic reassessment of project priorities and developed a budget revision to enable more funds to be targeted towards on-site wastewater BMPs and away from the riparian revegetation program. The decision was made to follow through with previous riparian revegetation commitment(s) but not to undertake new ones.

Once the program was re-instated, only one homeowner of the two was able to move forward with the program. The Coordinator worked with the homeowner, native plant experts, and online resources to purchase a limited palette of three native trees/shrubs and a very simple planting plan for the riparian planting. Oldham County Fiscal Court staff transported the plants to the residence and the homeowners completed the planting in late August of 2016. The homeowners are physically capable and have agreed to maintain the plantings. Table 1 and Figure 3 provide details and the location of the riparian revegetation site.

Success was defined as riparian plantings being completed in all selected and available properties, homeowner satisfaction, and survival of plantings. The program was successful based on the first two criteria defined. Due to the recent nature of this activity, the survival of the plantings cannot yet be determined. However, the Coordinator will monitor plant survival and maintain communication with homeowners under another grant.

Water Quality Enhancing Landscaping Practices**:**
Oldham County Fiscal Court held two workshops geared toward educating Curry's Fork Watershed residents. The 2013 rain garden workshop was attended by 39 citizens. The duration of the workshop was five-hours. The 2015 workshop was attended 23 total attendees, including 12 homeowners in the Curry's Fork Watershed. Speakers from Dropseed Nursery, Natural Resource Conservation Service, Sustainable Streams, Extension, and the Coordinator presented topics on watershed and water pollution basics as well as BMPs such as incorporating native plants, proper erosion control, no-mow riparian buffer zones, and green infrastructure for the homeowner. Success for both workshops was defined as the number of participants reaching at least 20, and the willingness of at least 75% of participants to provide contact information for further outreach and education. Both success criteria were met.

Conclusions

The single most important key to success of the projects involved with this grant was the work of the Coordinator. The goals of the grant would not have been possible without this crucial position being filled on at least a part-time basis. The 2015 lapse in continuity of maintaining a Coordinator led to a slight decrease in activities, as well as a shift in priorities, as would be expected. To balance this, the movement of the position from a contractor to a County employee integrated the program into the other work of the County more seamlessly, as well as raised awareness of the program in general. This change should also prove more enticing to future potential Coordinators, as well as providing retention value.

The Internal Program Team was an integral part of the success to the program. The Advisor and County Engineer provided continuity and big-picture guidance for the program throughout the grant cycle and were absolutely essential during the period without a Coordinator. The Advisor provides a true advisory role on water quality technical issues; and continues to be leaned on heavily for budgeting, invoicing, and proposal writing, and. The small size of this group made decision-making easier and allowed for fast-paced meetings to update others on progress and the need for help.

The TAC was suspended at the beginning of the grant cycle in order to focus on other initiatives. It was re-instated during the last year of the grant. The higher than expected turnout and engagement-level of the 2016 reconvening meeting was attributed to mailing formal letter invitations, a shortened format, and the pause in meeting schedules.

The last year of the budget cycle brought a detailed analysis by the Team to determine the highest priorities for the water quality in the area. It was decided to shift emphasis from a more education/outreach focus to an on-the-ground BMP implementation focus. The team performed a budget revision to reflect this adjustment.

An existing biannual local full-color newsletter of local government activities was found to be the best mode for communicating information, such as events and initiatives, to a broad county-wide audience. Not only did this better align the program with other County services, it

required less logistical time and less money. Maintaining a presence in the newsletter would keep the program at the forefront of residents' minds.

The Onsite Wastewater Cost-Share program was used as a pilot project for an upcoming grant proposal that has a much larger Cost-Share Program component. The lessons learned are many. The pilot program placed equal importance between maintenance activities and repairs/replacements of systems and processed both at the same time. This approach proved problematic, both in benefits to the resource, as well as the flow of the program. Septic repairs/replacements should be a higher priority for improving nonpoint source pollution, and therefore should be dealt with first, using the bulk of the funding. Only after higher and lower priority repairs and replacements are complete, should any remaining funds be used for septic pumpouts, perhaps at a lower cost-share ratio or even a flat amount ($100) off of the cost. The repair/replacement ratio seemed to be a good fit, while future programs might also consider stating that the program may contribute "up to 75%" and allowing participants to pay a higher percentage if they feel they are able to do so. A cap of $15,000 by the program will be stated clearly in the future information.

The riparian revegetation program would likely benefit from more broad-based approach. A detailed review of Watershed Plan recommendations, as well as research into the best strategies and recommendation from other watersheds, should be completed before future programs are undertaken. Volunteer efforts might be better used on public property.

Literature Cited

(KDOW, 2010) Kentucky Division of Water. April 2010. Integrated Report to Congress on the Condition of Water Resources in Kentucky 2010. 14 Reilly Road, Frankfort, KY 40601

(SAI, 2012) Strand Associates, Inc. March 2012 (revised). Curry's Fork Watershed Plan – Report for Oldham County Fiscal Court, Kentucky. 1525 Bull Lea Road, Suite 100 Lexington, KY 40511.

(KDE, 2015) Kentucky Department of Education. (December, 2015). Kentucky's Learning Goals and Academic Expectations. http://education.ky.gov/curriculum/standards/kyacadstand/Pages/Kentucky's-Learning-Goals-and-Academic-Expectations.aspx. Accessed 20 August 2016.

Appendices

Appendix A. Financial and Administrative Closeout

1. Application Outputs

Output	Source Milestone Status Report (MSR), Application (App), Budget Revision (BR)	Actual End Date
1. Submit all draft materials to the Cabinet for review and approval	MSR	Apr. 2016
2. Submit advanced written notice on all workshops, demonstrations, and/or field days to the Cabinet	MSR	Mar. 2016
3. Annual employee review of Watershed Coordinator	MSR	May 2016
4. Acquire sampling data from other local agencies' sampling programs within the Curry's Fork watershed to compile into database (as data are available)	MSR, BR	N/A*
5. Ongoing review of alternative funding sources for additional BMP Implementation	MSR	Mar. 2016
6. Watershed Coordinator to coordinate watershed activities with other entities within the Curry's Fork watershed	MSR	Jun. 2016
7. Submit draft materials to be used in 2013 educational seminar for elected officials and planning staff to NPS program staff for approval	MSR	Jan. 2014
8. Submit written notice to NPS program staff for 2013 educational seminar for elected officials and planning staff	MSR	Jan. 2014
9. Conduct 2013 educational seminar for elected officials and planning staff	MSR	Jan. 2014
10. Submit annual report to KDOW if requested	MSR	Dec. 2015
11. Engage in discussions with partner organizations to conduct a Septic system survey and/or promote a survey if none exists	MSR	Mar. 2016
12. Develop and submit BMP IP to KDOW for onsite wastewater workshop	MSR	Apr. 2014
13. Submit draft materials to be used in 2014 onsite wastewater workshop to NPS program staff for approval	MSR	Apr. 2014

14. Submit written notice to NPS program staff for 2014 onsite wastewater workshop	MSR	Mar 2014
15. Conduct 2014 onsite wastewater workshop	MSR	Apr. 2014
16. Submit draft materials to be used in 2014 watershed educational workshop to NPS program staff for approval	MSR	Sept. 2014
17. Submit written notice to NPS program staff for 2014 watershed educational workshop	MSR	Sept. 2014
18. Conduct 2014 watershed educational workshop	MSR	Sept. 2014
19. Mail letter to residents in South Curry's Fork to invite them to participate in riparian revegetation program	MSR	Nov. 2014
20. Submit draft materials to be used in 2014 educational seminar for elected officials and planning staff to NPS program staff for approval	MSR	Oct. 2014
21. Encourage participants in watershed activities to form a watershed group	MSR	May 2016
22. Submit written notice to NPS program staff for 2014 educational seminar for elected officials and planning staff	MSR	Sept. 2014
23. Conduct 2014 educational seminar for elected officials and planning staff	MSR	Oct. 2014
24. Choose participants for riparian revegetation	MSR	Jul. 2016
25. Plant riparian revegetation	MSR	Aug. 2016
26. Conduct outreach/public awareness about Septic system survey	MSR	Mar. 2016
27. Submit draft materials to be used in 2015 onsite wastewater workshop to NPS program staff for approval	MSR, BR	N/A*
28. Submit written notice to NPS program staff for 2015 onsite wastewater workshop	MSR, BR	N/A*
29. Conduct 2015 onsite wastewater workshop	MSR, BR	N/A*
30. Conduct follow-up maintenance/repair visits to workshop attendees	MSR, BR	Jul. 2016
31. Submit draft materials to be used in 2015 watershed educational workshop to NPS program staff for approval	MSR	Sept. 2015
32. Submit written notice to NPS program staff for 2015 watershed educational workshop	MSR	Sept. 2015
33. Conduct 2015 watershed educational workshop	MSR	Oct. 2015

34. Follow riparian planting with maintenance tips and oversight	MSR	Aug. 2016
35. Mail letter to residents in South Curry's Fork to invite them to participate in riparian revegetation program	MSR, BR	N/A*
36. Explore feasibility of creating an onsite wastewater authority	MSR	Mar. 2016
37. Facilitate initial meeting of citizen watershed group if necessary	MSR	Mar. 2016
38. Submit draft materials to be used in 2015 educational seminar for elected officials and planning staff to NPS program staff for approval	MSR, BR	N/A*
39. Submit written notice to NPS program staff for 2015 educational seminar for elected officials and planning staff	MSR, BR	N/A*
40. Conduct 2015 educational seminar for elected officials and planning staff	MSR, BR	N/A*
41. Plant riparian revegetation	MSR, BR	N/A*
42 Submit draft materials to be used in 2016 watershed educational workshop to NPS program staff for approval	MSR	Mar. 2016
43. Submit written notice to NPS program staff for 2016 watershed educational workshop	MSR	Mar. 2016
44. Conduct 2016 watershed educational workshop	MSR	May 2016
45. Follow riparian planting with maintenance tips and oversight	MSR, BR	N/A*
46. Upon request of the Division of Water, submit Annual Report and/or participate in the Cabinet sponsored biennial NPS Conference	MSR	Apr. 2016
47. Submit three copies of the Final Report and submit three copies of all products produced by this project	MSR	Sept. 2016
Install Creek Crossing Signs	App, BR	N/A*
Air Curry's Fork Specific Public Service Announcements.	App	Aug. 2016

* N/A: Closed/Budget Revision

2. Budget Summary

Original Application Detailed Budget				
Budget Categories (Itemize all Categories)	§319(h) (60% of funds)	Non-Federal Match (40% of funds)	TOTAL	
Personnel	$1,500	$47,652	$49,152	
Supplies	$15,483	$0	$15,483	
Equipment	$0	$0	$0	
Travel	$2,500	$0	$2,500	
Contractual	$112,710	$0	$112,710	
Operating Cost	$0	$42,477	$42,477	
Other	$3,000	$0	$3,000	
TOTAL	**$135,193**	**$90,129**	**$225,322**	
Revised Detailed Budget				
Budget Categories (Itemize all Categories)	§319(h) (60% of funds)	Non-Federal Match (40% of funds)	TOTAL	**Final Expenditures**
Personnel	$46,236	$48,059	$94,295	$90,645.97
Supplies	$15,536	$3,356	$18,892	$27,632.16
Equipment	$0	$0	$0	$0
Travel	$1,562	$0	$1,562	$2,842.80
Contractual	$69,503	$0	$69,503	$67,541.33
Operating Cost	$16	$37,664	$37,680	$35,475.03
Other	$2,340	$1,050	$3,390	$1,184.71
TOTAL	**$135,193**	**$90,129**	**$225,322**	**$225,322.00**

Budget Revision Explanation: A budget revision for this project was warranted for several reasons as summarized below:

- In April 2015, the Coordinator position was established as an Oldham County Fiscal Court position. Funding for the Coordinator's salary was originally budgeted in the Contractual Budget Category and needed to be shifted to the Personnel Budget Category; this shift resulted in more than 10% of grant funds being reallocated between Budget Object Class Categories.
- The Advisor position was under-budgeted in the original application, with only two of the three years of the grant period funded. The budget revision enabled the Advisor to be maintained for the project period.
- The Team conducted a strategic review of all project activities and commitments and concluded that they were overly ambitious, and more importantly, lacked the pathogen/bacteria reduction focus called for in the WP. In order to provide a more balanced and targeted implementation, the number of in-service trainings, workshops,

creek crossing signage and riparian revegetation events and initiatives were reduced and funding was redirected towards on-the-ground onsite wastewater inspections, maintenance, and repairs.

The budget revision was developed in consultation with, and subsequently approved by, the KDOW Nonpoint Source staff.

Close-Out Fiscal Statement: Oldham County Fiscal Court was reimbursed $135,193. All dollars were spent; there were no excess project funds to reallocate.

3. Equipment Summary

No equipment was purchased for this project.

4. Special Grant Conditions

No special grant conditions were placed on this project.

Appendix B. BMP Implementation Plans

Appendix B1. Curry's Fork Watershed Plan Best Management Practices Implementation Plan (SAI, 2012)

Appendix B2. Curry's Fork Watershed Onsite Wastewater System Workshop and Maintenance Best Management Practices Implementation Plan (OCFC, 2014)

Report for

Oldham County Fiscal Court, Kentucky

Curry's Fork Watershed Plan (WP)
Best Management Practices Implementation Plan (BMP IP)

Prepared by:

STRAND ASSOCIATES, INC.®
325 West Main Street
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April 2012

TABLE OF CONTENTS

OPTIONAL

INTRODUCTION AND PURPOSE

In February 2012, Oldham County Fiscal Court (OCFC) submitted the *Curry's Fork Watershed Plan* (WP) to the Kentucky Division of Water (KDOW). In anticipation of the approval of the WP, OCFC has prepared this Best Management Practices Implementation Plan (BMP IP) to enact selected elements from the WP. The BMP IP has been prepared in accordance with the requirements and direction of the December 2006 Memorandum of Agreement between the Commonwealth of Kentucky and OCFC. The BMP IP is intended to be used in conjunction with the WP and references the WP often. Because BMPs often have a physicality associated with them, this BMP IP will refer to them as "solutions" because most of what is planned for implementation does not have a physical component.

SOLUTIONS PLANNED FOR IMPLEMENTATION

The following solutions are planned for implementation:

1. Engage a Watershed Coordinator to be a link between implementation project responsible parties, funding agencies, watershed residents, OCFC, and technical resources (WP BMP No.9).

2. Plant streamside vegetation and other streamside habitat improvement projects in the upstream section of South Curry's Fork (WP BMP No. 21). A minimum of one streamside habitat improvement will be implemented.

3. Develop a monitoring plan to monitor solutions implemented as part of the WP (part of WP BMP No. 3).

WP BMP No. 9 (Watershed Coordinator) will result in partial to full implementation of other identified solutions in the WP. Following is a list of solutions that will be the focus of the Watershed Coordinator: (note that all education and outreach materials will be submitted to KDOW for review and approval before distribution. Also, all on-site wastewater, stormwater, and agricultural BMPs will have a BMP IP prepared and submitted to KDOW for approval before implementation.)

A. <u>Watershed Education, Participation, Coordination, and Marketing BMPs</u>

   1. Develop and implement a marketing program for the WP (WP BMP No. 2).

   2. Develop and implement Curry's Fork watershed education and awareness program, including information about the watershed, WP, WP recommendations, project activities, and community activities (WP BMP No. 4).

3. Ensure recommendations in the WP are formally communicated to United States Army Corps of Engineers, KDOW, and the Fish and Wildlife Service and encourage these agencies to use recommendations from WP for mitigation projects (WP BMP No. 5).

4. Implement education program for elected officials and Board members on the results and findings of the WP (WP BMP No. 10).

5. Engage community with watershed issues by providing watershed educational and recreational opportunities, including stream cleanups, water testing, and storm sewer stenciling (WP BMP No.26).

6. Support the formation of a citizen-based watershed group (WP BMP No. 48).

7. Use stream restoration projects to education decision makers and the community on stream conditions and functions (WP BMP No. 49)

B. On-Site Wastewater System BMPs

1. Encourage a septic system survey program to identify failing systems for replacement repair, or elimination (part of WP BMP No.1).

2. Establish one "Bad Septic Area Map" for all county planning purposes (WP BMP No. 6).

3. Evaluate an On-site Wastewater Authority to provide oversight on on-site wastewater management, operation and maintenance (part of WP BMP No. 7).

4. Promote on-site wastewater system maintenance, operation and management education, targeting systems that are in low-lying areas and inproximity to waterways in the upper portion of Asher's Run subwatershed (WP BMP No. 22).

5. Promote on-site wastewater system maintenance, operation and management education, targeting systems in low-lying areas and in proximity to waterways in the upper portion North Curry's Fork subwatershed (WP BMP No. 28).

6. Promote on-site wastewater system maintenance, operation and management education, targeting systems in low-lying areas and in proximity to waterways in North Curry's Fork subwatershed (WP BMP No. 55).

C. Stormwater BMPs

Support and encourage full and expedient development and implementation of Oldham County Environmental Authorities (OCEA) Stormwater Quality Management Plans (SWQMPs) (WP BMP No. 47).

D. Agriculture BMPs

1. Educate owners of nontraditional animals/livestock on appropriate BMPs for pathogen reduction in the upper portion Asher's Run subwatershed (WP BMP No. 24).

2. Educate owners of livestock animals on appropriate BMPs for pathogen reduction in the upper portion of Asher's Run subwatershed (WP BMP No. 34).

3. Encourage producers with marginal pasture lands to put their land into conservation easements, wildlife habitats, and land stewardships in the Asher's Run subwatershed (WP BMP No. 35).

4. Educate owners of livestock animals on appropriate BMPs for pathogen reduction in the upper portion of Curry's Fork main stem subwatershed (WP BMP No. 38).

5. Encourage producers with marginal pasture lands to put their land into conservation easements, wildlife habitats, and land stewardships in the Curry's Fork main stem subwatershed (WP BMP No. 41).

SOLUTION SELECTION PROCESS

A detailed description of how solutions were identified and prioritized is included in the WP. Selecting solutions to implement as part of the current grant funding was completed based on the following factors:

1. Priority–Identified solutions were organized in three tiers of priority in the WP. Solutions with higher priority were preferable to those with lower priority.

2. Cost–The current grant has approximately $125,000 remaining for BMP implementation.

3. Schedule–The current grant ends in September 2013. In order to complete the grant closeout process, all work associated with the grant must be complete in June 2013. Allowing time for KDOW review and approval of the BMP IP, which must be done before any implementation can be completed. There is a little more than one year available to implement BMPs with this grant.

4. Sustaining Effectiveness–Solutions that would provide long-lasting impacts on water quality were preferred over those that had only short durations of effectiveness.

5. Operation and Maintenance–Solutions that required minimal operation or maintenance efforts after the initial implementation would be preferred over those that would require substantial efforts to maintain effectiveness.

TARGETING SOLUTIONS

Solutions were targeted through the watershed planning process and included substantial technical analysis and stakeholder input. A complete description of this process can be found in the WP.

Sites for streamside vegetative planting will be determined through a filtering process based on the initial findings of the WP. General locations of areas that could benefit through a streamside planting BMP have been identified in the WP. Property information for these areas can be obtained to identify areas with existing easements that will allow for the planting project and/or supportive property owners that would grant the necessary rights. Sites with existing easements or known supportive owners will be more likely locations than those that will require acquiring property rights.

The site selection process for riparian buffer planting will consider the following:

1. Properties with existing easements or other protection status.
2. Avoidance of areas with planned utility extensions.
3. Properties with supportive landowners.
4. Willingness of landowners to assist with maintenance inspections and operations.
5. Properties not identified for future stream restoration.
6. Properties with opportunities for additional BMPs and/or educational efforts beyond the streamside planting.
7. Properties that contain significant stream lengths within them.
8. Visibility and accessibility of the site.

Once the evaluation process has been completed, the sites will be ranked and the most desirable one(s) pursued for streamside planting projects.

NOTIFICATION PROCEDURES

The Nonpoint Section of KDOW Section Supervisor, assigned Technical Advisor and Grant Administrator will be notified via e-mail from the Oldham County Engineer's Office before implementing the streamside revegetation initiative(s). This will be done a minimum of four weeks before the event, which is currently planned for spring 2013.

FINANCIAL PLAN OF ACTION

All solutions will be funded through the existing grant. Matching funds have already been secured for the implementation of solutions through this grant. No cost-share type of financial arrangements are necessary for the BMPs and solutions to be implemented. All costs will be billed to KDOW as part of the regular quarterly invoicing process and as detailed in the Project Budget (revised March 2012).

MAINTENANCE AGREEMENTS

BMPs will be maintained for the entire life expectancy of the practice. Any BMP installed on private property will have a maintenance agreement signed by the landowner before installation that will outline the maintenance requirements and identify the responsible parties.
For the streamside revegetation initiative(s), protection and maintenance recommendations detailed in the University of Kentucky's Cooperative Extension Service Publication (ID-185) titled *Planting a Riparian Buffer* (October 2010) will be followed. Specifically, the emerging vegetation will be monitored to ensure that undesired species are identified and quickly removed. The site will be visited yearly during the first three years to check tree survival. If tree survival is low, additional plantings will be implemented.

To help ensure survival of the riparian buffer, the following implementation actions will be taken:

1. Signage may be used to mark the boundaries of the riparian buffer as appropriate for the specific site(s).

2. Tree shelters will be utilized during installation where wildlife browsing is a concern.

3. Fabric mats will be utilized to prevent competition from herbaceous vegetation.

4. OCFC will purchase and plant only native species that may include trees, shrubs, and perennials.

The University of Kentucky's Cooperative Extension Service's *Streamside Buffer Zones* brochure identifies native species that are moisture-tolerant (for plants installed within 6 inches to 5 feet of water's edge) and moderate-to-dry soil tolerant plants (for plants installed more than 5 feet from the water's edge).The exact species purchased and planted by OCFC will be based on the *Streamside Buffer Zone* brochure, cost of plants, availability of plants, and recommendations from selected nurseries and other riparian vegetation experts. OCFC intends to purchase a variety of trees/plants of varying age that will be planted randomly to avoid a monoculture appearance and to better mimic natural conditions of streamside areas.

STATEMENT ON AGRICULTURAL AND FORESTRY SOLUTIONS

All agricultural or forestry solutions will be implemented consistently with the Kentucky Agriculture Water Quality Act and/or the Forest Conservation Act.

Curry's Fork Watershed
Onsite Wastewater System Workshop and Maintenance
Best Management Practices Implementation Plan
Oldham County Fiscal Court, Kentucky
April 2014

BMP Implementation Plans (BMP IP) must be submitted to KDOW before any implementation begins (see BMP Implementation Plan Condition in the Grant Guidance document). When projects are implementing BMPs for multiple nonpoint source categories (i.e. agricultural, onsite, etc) the contractor may choose to write individual plans for each category. The requirements outlined below must be included in these plans.

BMP requirements based on current guidance:

Provide a list of technologies to be installed

- BMP 4: Part of the septic system workshop is to inform attendees about the Curry's Fork Watershed Plan and how to be good watershed stewards.
- BMP 22: Septic system workshop, targeting residents of Asher's Run and lower South Curry's Fork, and informing attendees what a septic system is and how to maintain and repair it.
- BMP 23, 59: To encourage people to come to the workshop, a drawing will be held for $1,500 in reimbursements towards the maintenance and repair of septic systems. This incentive is only available to those residents in the target area.
- BMP 26: The septic system workshop will focus on improving on-site wastewater systems with the goal of improving water quality.
- BMP 33: As part of the septic system workshop, Health Department Environmental staff will offer to visit any property where owners believe they have an impaired or leaking system.

Describe the selection process

The BMPs were selected as part of the county's 2010 319(h) grant application. Bacteria levels in upper Asher's Run and lower South Curry's Fork were identified in the watershed plan as being high, and a septic system workshop was proposed to help remedy bacteria levels. The relative treatment efficiency is moderate to high, depending on the severity of the wastewater system impairments and the number of property owners in attendance. All BMPs addressed were ranked as first- and second-tier BMPs in the watershed plan.

The workshop will last for two hours; however the follow-up to the workshop, including visits to attendees' properties by Health Department officials and repairs and maintenance to systems, could last several months. The education that the workshop attendees receive will hopefully provide benefits for years. The cost of the BMPs includes the facility, the presenters' time, the Health Department staff's time visiting attendees' properties, and the $1,500 reimbursement.

Describe how selected BMPs will be targeted to specific locations

The watershed plan identifies upper Asher's Fork and lower South Curry's Fork as having elevated bacteria levels. While the levels in lower South Curry's Fork may be from package treatment plants, those developments in both areas that are served by septic are aging and may have failing systems.

Explain the financial plan of action
The attendees who come to the septic system workshop will pay for their own septic system maintenance and repair, with the exception of the three attendees who win the $500 repair and maintenance reimbursement drawing. Only Curry's Fork residents are eligible for the reimbursement. If the three awardees do not use all of the $1,500, we will ask an official at Fiscal Court to draw a fourth name and offer that attendee the opportunity to use the money.

Describe the maintenance agreement with landowner
No maintenance agreement is required. However, workshop participants will receive a certificate of participation in which it states that they learned about proper septic system maintenance.

Describe the notification process to DOW
Brooke Shireman of the DOW has been notified of the workshop and discussed with Oldham County staff the best way to design the workshop.

Provide a statement that at minimum, agricultural and forestry BMPs will comply with KY Ag Water Quality Act or the Forest Conservation Act.
No agricultural and forestry BMPs are being implemented.

Appendix C. Printed Project Deliverables

Appendix C. includes the following documents in the order listed below.

C1. Green Infrastructure Tour: schedule , invitation, PD hours, photos (2013)
C2. Internal Project Team: representative examples of meeting agendas (2013-2016)
C3. Education Presentation: representative examples adapted for Buckner Elementary (2013), UL environmental law class (2013), OCEA (2014), and Cattleman's Association (03/2015)
C4. Public Service Announcements: links and transcripts (2013)
C5. Green Infrastructure and Post-Construction Ordinance Inservice Training: (01/2014)
C6. KWRRI Watershed Symposium: agenda, abstract, and presentation (3/2014)
C7. Rain garden Workshops (3/2014 and 8/2014)
C8. Onsite Wastewater Workshop: advertising postcard, workshop handouts, completion certificate, award letter (4/2014)
C9. Kentucky Stormwater Association: agenda, presentation (6/2014)
C10. Public Meeting-Amazing Watershed Challenge: press release, advertisement, television script, sponsorship plea, representative challenge questions, newspaper article, and photos (8/2014)
C11. Annual Reports to KDOW (2014, 2015)
C12. Social Media: representative posts with link on pages (2015-16)
C13. "Putting Nature to Work in Your Landscape": promotional materials, agenda, presentation (10/2015)
C14. Technical Advisory Committee: meeting agenda, invitation, presentation, notes (3/ 2016)
C15. "What's Happening": newsletter article (spring 2016)
C16. "In The Flow": newsletter article (3/2016)
C17. Public Meeting-Curry's Fork-fest: agenda, press release, flyer, newsletter articles, presentations, photos (5/2016)
C18. Onsite Wastewater Cost-Share Pilot Program: internal implementation plan, letters, forms, agreements, photos of installation/repair (7/2016)
C19. Riparian Revegetation: homeowner agreement, list of plants used, and photos (8/2016)
C20. Watershed Coordinator Training Activities: representative agendas from Ag Boot camp, MSD Field Day (2015)
C21. Watershed Coordinator Partner Meetings: representative agendas from Oldham LaGrange Development Authority and Oldham County Conservation District

C-1.

Curry's Fork Watershed
Low-Impact Development Tour
Aug. 28, 2013
Schedule

8:00 Meet at OCFC in large meeting room; coffee and pastries

8:05 Introductions

8:10 Kevin and Chad to give presentation

8:35 Load bus

8:45 Depart

9:05 Arrive at Kosair Hosp. and unload bus

9:35 Load bus

9:40 Depart

10:00 Arrive Sacred Heart and unload bus

10:40 Load bus

10:45 Depart

11:00 Arrive Swan and Ellison and unload bus

11:15 Load bus

11:20 Depart

11:30 Arrive Market Street and unload bus

11:50 Load bus

11:55 Drive past Preservation Station

12:00 Depart for LaGrange

Dear Oldham County Community Leaders:

The treatment of stormwater run-off is an increasingly important issue for municipalities, developers, and engineers. Green infrastructure solutions can ultimately save residents and Oldham County thousands of dollars in storm water treatment.

The Oldham County Engineering Department is offering the county's leaders a tour to learn more about green infrastructure solutions. The tour, led by the projects' design engineers, will take us to multiple regional projects. We will have the chance to discuss cost, what worked, and where there is room for improvement. This will be a practical and honest examination of the low impact development and its potential future in Oldham County.

Please join us on Wednesday, August 28th, from 8:30 to 12:00. A motorcoach will be provided. Pick-up and drop-off will take place behind Fiscal Court on Second Avenue. To reserve a spot, please contact Carolyn Cromer at 222-1476 or by emailing ccromer@oldhamcountyky.gov. Reservations must be made by August 26th.

Sincerely,
Beth Stuber

DAVID VOEGELE
JUDGE-EXECUTIVE
DVOEGELE@OLDHAMCOUNTYKY.GOV

JOHN BLACK
DEPUTY JUDGE-EXECUTIVE
JBLACK@OLDHAMCOUNTYKY.GOV

BETH STUBER, PE
COUNTY ENGINEER
BSTUBER@OLDHAMCOUNTYKY.CGOV

OLDHAM COUNTY FISCAL COURT
100 WEST JEFFERSON STREET, SUITE 3, LAGRANGE, KENTUCKY 40031
OFFICE 502-222-1476 • FAX 502-222-3213
WWW.OLDHAMCOUNTYKY.GOV

This is to certify that

Charles Weiter, PE

Has earned 5 hours of Professional Development by successfully completing a training seminar entitled

Low-impact development techniques designed to improve community planning and infrastructure

Presented by Oldham County's Engineer's Office and Planning and Development

Held August 28, 2013 in LaGrange, Kentucky

Elizabeth W. Stuber, P.E.
Oldham County Engineer

C-1.

Curry's Fork Low Impact Development Tour
Photos
Aug. 28, 2013

C2.

AGENDA- Team Meeting
November 26, 2013

- OCEA- how best to address what they may not be doing that overlaps with Curry's Fork BMPs
- Identify and prioritize projects for which we want to go after additional funds- role of Technical Committee →
- 319 (h) funding, regular and re-obligation
- In-service ideas and feedback
- Eligible match from PSAs
- Update on new grant
  - Outreach to schools, Rotary
  - In-service
  - On-site waste water workshop
  - Summer watershed event
  - Watershed Watch
  - ? Greenways Trail
- Conservation District cost share

aj uanda Haight - Maybriar
Lv ed. ~~[illegible]~~ for 319 advisor
12/4/13 Emailed Brooke to ask about job of this position

- Corrin wants to encourage more creativ w/ G-I options, not just retention basins.

- Beth + I need to impart to judge the importance of us reviewing OCEA's annual report.

✓ - Corrin wants to look @ new grant invoice before it goes to Melissa.
- We may have to do a budget revision if we count PSA as match.

✓ C/C * Ask Jay to start a log of when PSAs are running. What documents does he have on what's been running? He could also send an email periodically w/ amts. PSAs have been shown.

11/21 He said he won't do it.

✓ - Corrin wants us to get interim data of deliverables from Strand. For example: there are water qual. data available now, that are available for analysis. Ask Paul to check into that + do some comparrisons from DOW

A G E N D A

Curry's Fork Watershed Internal Project Team Meeting

B. Stuber, J.Shean, and C. Mulberry

Thursday, May 7th, 2015 11:00 - 12:00)

I. **Review/Edit Agenda**

II. **Weclome & Introductions**

- Individual roles & Internal Project Team
- Orientation Strategy

III. **Project Administration**

- 2010 319(h) Grant
  - Quarterly Invoice and Status Report (Jan-Mar 2015)
  - Revised Internal Milestone Status Report
  - Budget Revision - WC salary & indirect; check CM costs contractor → personnel
- 2013 319(h) Grant
  - KDOW Contract Executed
  - Tracking!! Two grants - two quarterly invoices/status reports, etc.
  - Revise Milestone Status Report to be more inclusive of all activities in application/workplan
  - Budget Revision - WC salary & indirect; check CM costs
- Editable copy of WP - Download and retain!
- Watershed Plan Amendments (pending-CLM)
- Develop EZ Watershed Solutions document (pending - CLM/new WC)

IV. **Watershed Plan Implementation**

- Business Park Development Agreement & other issues stream relocation & mitigation; sewer & water coordination, post-development controls/BMPs
- Curry's Fork Technical Committee - Update on Strategy (pending-CLM) Advisory
- FFY 2010 Grant
  - Onsite WW initiatives - Put on hold with Hth Department
  - Contact Revegetation Homeowners - revise/adjust fall 2014 Riparian
  - Signage and other activities not yet initiated.
- FFY 2013 Grant
  - Sustainable Streams work - CM "Highest Priority" Bob Holly
    - Review and Revise Proposed Work
    - Property Access (OCFC)
    - Draft Contract - overall approach/narrative of concern
  - Other Milestones Requiring Action

V. **Closing**

- Schedule next Internal Project Team Meeting
- Review Commitments and Deadlines
- Comments/Feedback

Bring:
Calendar

Complied by C. Mulberry
Curry's Fork WTA
05/07/2015

A G E N D A

Curry's Fork Watershed Internal Project Team Meeting

B. Stuber, J.Shean, and C. Mulberry

Wednesday, June 3rd, 2015 (10:30 - 11:30)

I. **Review/Edit Agenda**

II. **Project Administration**

- 2010 319(h) Grant (10-15)
  - Invoice and Status Report (Jan-Mar 2015); discrepancy with total grant $$ (BS)
  - Milestone Status Report - discrepancy between MOA & current version (JS)
  - Budget Revision - WC salary & indirect/ project activities/ CLM 2 yrs (need 3) (summer 2015)
- 2013 319(h) Grant (13-10)
  - Budget Revision - WC salary & indirect; porous pavement (Fall 2015)
- Watershed Plan Amendments (CLM)
- Develop Watershed Plan Tracking document for FC & TAC (JS/CLM)

III. **Watershed Plan Implementation**

- Curry's Fork Technical Advisory Committee - Update on Strategy (CLM)
- FFY 2010 Grant
  - Internal Activity Tracking document (JS)
  - Schedule strategic discussion to set priorities, identify necessary modifications and to guide budget revision.
- FFY 2013 Grant
  - Internal Activity Tracking document (JS)
  - Sustainable Streams update (OCFC support, property access, contract, etc.) (JS/BS)
  - Prep for KDOW "Kick Off" meeting; review ALL activities and commitments
- Oldham Reserve Business Park Development

IV. **Closing**

- Schedule 10-15 Strategic Discussion, Internal Project Team Meeting & WC/WTA tech transfer
- Review Commitments and Deadlines
- Comments/Feedback

Bring:
Calendar
13-10 Application/Workplan

Complied by C. Mulberry
Curry's Fork WTA
06/02/2015

A G E N D A

Curry's Fork Watershed Internal Project Team Meeting

B. Stuber, J. Shean, and C. Mulberry

Thursday, November 19st, 2015 (10:30 a.m. - 12:00 p.m.)

I. Review/Edit Agenda

II. FFY 2010 Grant (10-15)

Administration

- July - Sept 2015 Invoice & Milestone Report

Project Management

- Onsite WW initiative - coordination & planning with OCHD
- General public meeting - (also see 13-10 related commitments); est timeframe
- Social Media/Outreach
- Anything Else?

III. FFY 2013 Grant (13-10)

Administration

- Apr - Sept 2015 Invoice & Milestone Report
- Budget Revision - Decision Time
    - WC salary & indirect
    - Porous pavement as match?
    - Incentivize LID planning Oldham Reserve?
    - Oldham Reserve Conservation Easement area as match?
    - Fund Clarke point de-paving?
    - Remove Swale Enhancement?
    - Sign for restoration project
- Develop detailed invoice and activity tracking

Project Management

- Sediment stream work (public meeting, signage, volunteers, invasive removal, tour)
- Riparian buffer ordinance, riparian education & riparian reveg: .
- NCF Sediment Source ID (purchase 7.5 minute quads, coordinate with OCEA/KYTC?)
- 2013 BMP IP - for which activity?
- Swale Enhancement
- Watershed Ed Event ('17)

IV. FFY 2015 319(h) Grant [Reminder: Need careful review of draft MOA/Contract before signing. KDOW providing state cost-share match.]

V. Non-Grant Specific Technical Topics

- Curry's Fork Technical Advisory Committee
- Watershed Plan Amendments
- Updated WAH status (2012 Integrated Report)
- Develop Watershed Plan Tracking document for FC, TAC and others
- WC/WTA Watershed Plan Overview

VI. Closing

- Schedule next IPT Meeting
- Review Commitments and Deadlines
- Comments/Feedback

2006-MOA

A G E N D A

Curry's Fork Watershed Internal Project Team Meeting

B. Stuber, J. Shean, and C. Mulberry
Wednesday, January 27th, 2016 (9:00 a.m. – 10:30 a.m.)

I. Review/Edit Agenda

II. FFY 2015 319(h) Grant [Reminder: Need careful review of draft MOA/Contract before signing. KDOW providing state cost-share match.]

- KDOW comments/revising application.
- See Jen's comments and Corrine's comments document: dates sections

III. FFY 2010 Grant (10-15)

Administration

- Invoices & Milestone Status Reports#8: sent to KDOW 12/14/15
- Invoices & Milestone Status Reports #9: Sept. 2015-Dec. 2015, new process, fringe issue
- Plan ahead for Final & Close-Out Reports – Corrine – Done in July

Project Management

- Onsite WW initiative – coordination & planning with OCHD
- Review Corrine's comments on Jen's draft Onsite WW Cost-share Program Process
- Reveg wrap-up: status, volunteers/crew, date window – Last Annual Report FC Conf. possibly March
- TAC meeting: choose date, Review Corrine's draft docs on this. Longfont room for Both
- General public meeting: date, place (also see 13-10 related commitments); timeframe
- Social Media/Outreach –School outreach, attending mtgs., OC day, Jen's outreach spending requests: giant map, nets, basins, laminated bug ID cards – Estimate to CM – CM

IV. FFY 2013 Grant (13-10)

Administration

- Apr – Sept 2015 Invoice & Milestone Report 1: on MH desk since 12/14
- Sept. 2015-Dec. 2015 _ Jen develop template more, MH start?
- Develop detailed invoice and activity tracking
- Budget Revision – Decision Time
  - WC salary & indirect, Porous pavement as match?, Incentivize LID planning Oldham Reserve? Oldham Reserve Conservation Easement area as match?, Fund Clarke point de-paving?, Remove Swale Enhancement?, Sign for restoration project, increase $$ for CLM from 3 hrs/month to ? $500

Project Management

- Sediment stream work (public meeting, signage, volunteers, invasive removal, tour)
- Possibility of shift to 2017: bat window
- Riparian buffer ordinance, riparian education & riparian reveg: . move up if 55 is 2017
- NCF Sediment Source ID (purchase 7.5 minute quads, coordinate with OCEA/KYTC?, timeframe)
- 2013 BMP IP for streamwork: approved by KDOW
- Swale Enhancement
- Watershed Ed Event ('17) – creek walks in fall 2016? Region April 2 waters signed gastro intestinal

V. Non-Grant Specific Technical Topics

- Curry's Fork Technical Advisory Committee
- Watershed Plan Amendments
- ~~Updated WAH status (2012 Integrated Report)~~
- Develop Watershed Plan Tracking document for FC, TAC and others

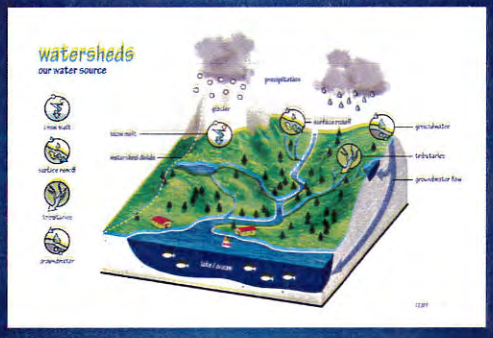
KWRRI – Jen + CM – March 25

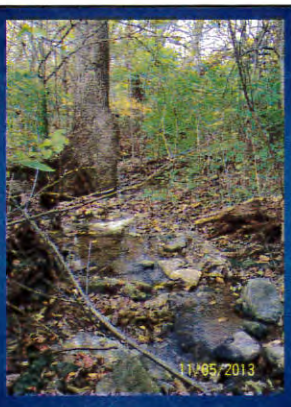
Public Mtg. May/June

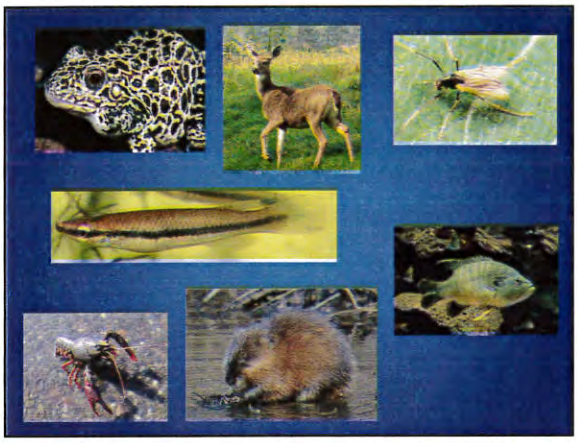
Watersheds, Creeks, and You!

November 6, 2013
Buckner Elementary School

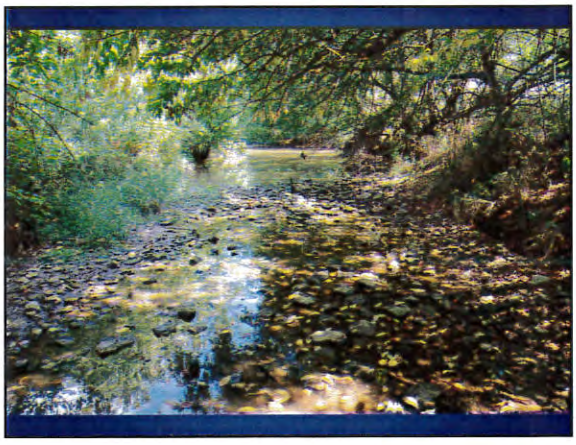
Funding for this project was provided in part by a grant from the U.S. Environmental Protection Agency through the Kentucky Division of Water, Nonpoint Source Section, to the Oldham County Fiscal Court as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant # C9994861-06.








©Chris Leary



Lawn Care	Auto Maintenance	Pet Care	Sustainable Homeowner
$100	$100	$100	$100
$200	$200	$200	$200
$300	$300	$300	$300

Lawn Care $100

How many feet of vegetative buffer should you have next to a stream or creek?

One or two feet
As many as you can
Ten feet of buffer per foot of stream width

Lawn Care $200

What are two ways that you can minimize the negative impact that pesticides and fertilizers have on the watershed?

Lawn Care $300

What can you do to reduce soil erosion and sediment from getting into Oldham County's creek?

Auto Maintenance $100

Where is the best place to wash your car, and why:

- on your lawn
- in your driveway
- on the street

Auto Maintenance $200

Where should used oil be disposed in order to prevent it from getting into ground water or streams?

Auto Maintenance $300

What are two good ways to prevent engine leaks, such as oil and Freon, from polluting the watershed?

Pet Care $100

For a cleaner watershed, which is the better way to dispose of pet waste?

Leave it on the ground to compost

Pick it up and throw it in the trash

Pet Care $200

What does pet waste have in it that will contaminate the watershed?

Pet Care $300

Approximately how many pounds of dog waste are deposited on Oldham County every day?

75
750
7,500

Sustainable Homeowner $100

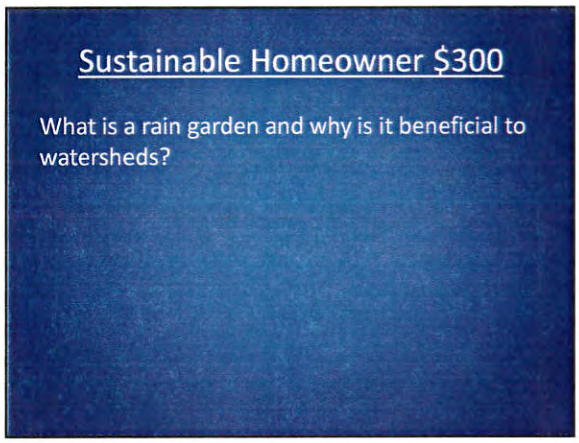
Which is the best way to improve water infiltration in your yard?

- Allow areas of your lawn to grow unmown
- Plant native grasses and wildflowers.
- Change impermeable surfaces to permeable surfaces
- All of the above

Sustainable Homeowner $200

Which driveway material provides the best water infiltration? Why?

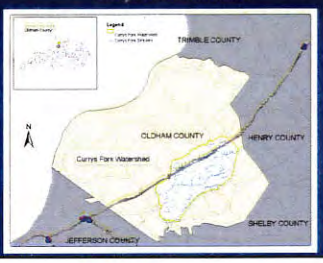
- concrete
- gravel
- asphalt

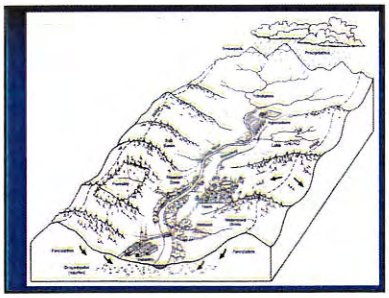

Sustainable Homeowner $300
What is a rain garden and why is it beneficial to watersheds?

Improving Water Quality in Curry's Fork Watershed

July 29, 2014
Lagrange Rotary Club

Curry's Fork Watershed





Curry's Fork Creek Watershed Study: 2006 - 2012

Kentucky Division of Water testing found that Curry's Fork Creek does not meet Clean Water Act state standards for:

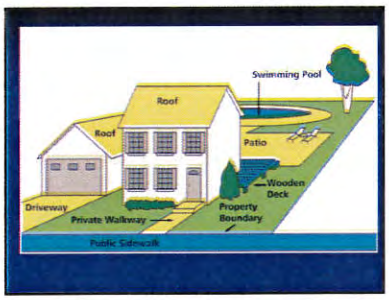
- "primary contact recreation", i.e. swimming, wading, fishing, because of bacteria in the form of fecal coliform.

Kentucky Division of Water testing found that Curry's Fork Creek does not meet Clean Water Act state standards for:

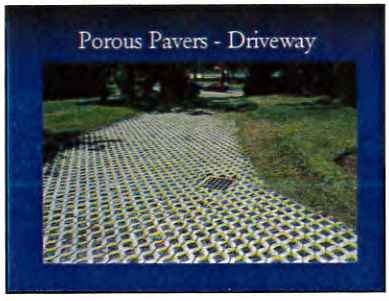
- "primary contact recreation", i.e. swimming, wading, fishing, because of bacteria in the form of fecal coliform.
- warm water aquatic habitat because of the presence of sediment, nutrients causing eutrophication, and a lack of dissolved oxygen.

The result:

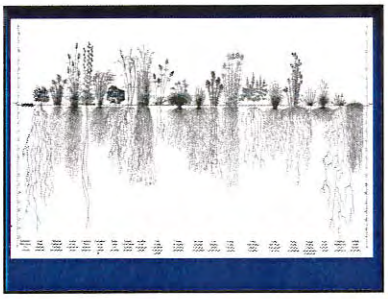
64 recommendations on how we can improve water quality.



Next riparian revegetation program beginning now!!!



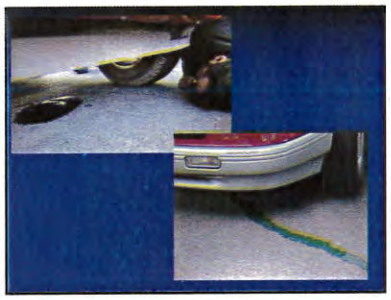

Porous Asphalt




Porous Patios


CHARLOTTE
FLORIDA
Septic tank is leaking, onto the ground as a result of unchecked corrosion.
Maintain your septic system.

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, to the Oldham County Fiscal Court as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant # C9994861-10.



How else can I help?

- Form and participate in a local watershed group
- Participte in water quality projects
- Support conservation projects

Oldham County Fiscal Court

Curry's Fork Watershed

Nonpoint Source Pollution

Public Service Announcements Links

Below is a list of public service announcement developed by Oldham County Fiscal Court staff for the Curry's Fork Watershed Project, funded in part by a previous grant from the U.S. Environmental Protection Agency under §319(h) of the Clean Water Act. All PSAs have been approved by the Kentucky State Division of Water's NPS Department.

- Septic (Septic)

  https://www.youtube.com/watch?v=o22KOH2a4sA

- Vegetated buffers (Heros),

  https://www.youtube.com/watch?v=pFK-U4MvIZ4

- Car oil pollution (Fluid Rainbow),

  https://www.youtube.com/watch?v=CotNGJyqcK4

- Proper car washing (Bob1),

  https://www.youtube.com/watch?v=fl95_PKqW34

- Treatment of eaves from lawn (Bob 2)

  https://www.youtube.com/watch?v=Sssvcm3_E-c

- Fertilizer runoff (Fluids Run to Ocean)

  https://www.youtube.com/watch?v=tm2vTnPpEsA

- Watershed stewardship: reducing runoff and storm drain pollution (Youth Voices)

  https://www.youtube.com/watch?v=o0RKfJai5N0

- Pet waste (Ecodog)

  https://www.youtube.com/watch?v=q_ArrNt3Zlo

Curry's Fork Watershed PSA Examples

"Bob Mows Lawn"

[Shot of Bob's head.] This is Bob. Bob is a do-it-yourselfer who lives in the Curry's Fork Creek Watershed.

[Shot of Bob on his expansive perfect lawn.] Bob likes to keep his lawn looking pristine.

[Shot of Bob dumping a bag of leaves and sticks into the creek.] One of the ways he does this is by dumping leaves and grass clippings into the creek.

[Show piles and piles of leaves and grass in creek.] When this plant waste decomposes, it robs the water of oxygen that fish and other aquatic life need to live.

[Shaking fingers in foreground, sad Bob in background.] Bad, Bob, bad.

[Shot of Bob mowing lawn.] Now, Bob leaves the grass clippings on his lawn where they act as an organic time-release fertilizer.

[Shot of Bob mulching leaves.] He mulches the leaves on his lawn or collects them to use as organic mulch around his plants or in his garden.

[Shot of Bob standing looking happy and smiling.] Bob is such a swell guy.

[Shot of Bob with birds and fish hanging on him.] Now, all the wildlife love Bob and he is living happily ever after.

Voice: For more information on how to keep our watershed clean, contact the University of Kentucky Cooperative Extension in Oldham County or go to [change to shot of Oldham Co. Fiscal Court logo and grant funding language] www.oldhamcounty.net and click on "Curry's Fork Watershed" under Community Links.

"Bob Washes Car"

[Shot of Bob's head.] This is Bob. Bob is a do-it-yourselfer who lives in the Curry's Fork Creek Watershed.

[Tight shot of Bob washing his car.] Bob washes his own car.

[Shot of Bob washing car in driveway.] Bob used to wash his car in his driveway,

[Shot of water running down street into storm drain] where water, soap, and oil would run onto the street, down the inlet,

[Shot of water coming out of pipe into creek.] and directly into Curry's Fork Creek.

[Shaking fingers in foreground, sad Bob in background.] Bad, Bob, bad.

[Shot of Bob washing his car on lawn.] Now, Bob washes his car on his lawn where the soap and oil are filtered by the soil

[Shot of Bob washing his car at car wash.] or at a car wash where the water goes into a treatment tank. This helps to keep Curry's Fork clean.

[Shot of Bob standing looking happy and smiling.] Bob is such a swell guy.

[Shot of Bob with birds and fish hanging on him.] Now, all the wildlife love Bob and he is living happily ever after.

Voice: For more information on how to keep our watershed clean, go to [change to shot of OCFC log and grant funding language] www.oldhamcounty.net and click on Curry's Fork Watershed under Community Links.

"It All Flows to the Ocean"

Child: How come Dad couldn't come to the pool?

Mom: He had to fertilize the lawn.

Child: We learned in school that when fertilizer gets washed into the creeks it causes slimy algae to grow.

Mom: Is that bad?

Child: When there's too much algae there's not enough oxygen for the fish. Other things can wash off lawns too, like pesticides.

Mom: Why are the pesticides bad?

Child: They kill the bugs that the fish need to live. I sure hope he reads the directions and doesn't use too much.

[Shot of OCFC logo with grant funding language at bottom.]
Voice: Help keep Curry's Fork Creek healthy and clean. Use fertilizers and pesticides sparingly or switch to green alternatives. For more information, contact the University of Kentucky Cooperative Extension in Oldham County or go to www.oldhamcounty.net and click on "Curry's Fork Watershed" under "Community Links."

Fluid Rainbow

Under the right conditions, you might just see a rainbow in the sky. It's a beautiful and natural thing; but this is just the opposite. It's the slimy rainbow-colored sheen of fluids that have leaked from cars, fluids that wash down the storm drain and end up in our rivers and streams, and that's not beautiful or natural.

Did you know that one gallon of motor oil can pollute a million gallons of water?

Be responsible. Fix the leaks on your car, and do your part to protect Oldham County's creeks and lakes. Water pollution: it's everyone's problem.

[Shot of OCFC logo with grant funding language at the bottom.]
For more information on how to keep our watershed clean, go to www.oldhamcounty.net and click on "Curry's Fork Watershed" under Community Links.

Squishy Feet"/"Failing Septic Systems"

[Starts with the scene from "Squishy Feet"]:

Realtor: Isn't this a great back yard? And the neighborhood is close to everything.

[Realtor walks through septic system leak puddle.]

Wife: What's that smell?

[Scenes from septic tank failures, perhaps illustration of septic tank, someone pumping out their tank.]

Voice: No time is a good time for a (smelly or similar word) septic tank failure. Failing septic systems can make our drinking water unsafe and harm our ground water, creeks and rivers. Maintain your system. Don't pour harsh chemicals down the drain. Pump your system out every three to five years. And, if it was installed before 1974, consider replacing it.

[Back to end of "Squishy Feet"]

Realtor: And wait 'til you see the kitchen.

[She walks through kitchen with poopy footprints from septic leak.]

[Shot of OCFC logo with grant funding language at bottom.]

For more information on how to keep Oldham County's creeks and watersheds clean, go to www.oldhamcountyky.gov and click on Curry's Fork Watershed under the Community Links.

"Youth Voices"

Keirstin: It's time we all accept personal responsibility for water pollution in Oldham County's creeks and lakes.

Emmaly: Dumping just one quart of motor oil into a storm drain ends up in our creeks and can pollute a million gallons of water.

Hannah: Fertilizers and pesticides run off lawns and pollute our streams. Follow the directions and use these products sparingly, or learn how to go green and eliminate chemicals on your lawn all together.

Casey: If you have a creek in your yard, stop mowing down to the water. Create a vegetative buffer along the bank by planting trees, bushes, and grasses that will filter polluted stormwater runoff and help prevent erosion.

Christina: Keeping Oldham County's creeks clean is all of our responsibility.

Everybody: Lets all do our part.

[Shot of OCFC logo with grant funding info at bottom.]

For more information on how to keep our watershed clean, go to www.oldhamcounty.net and click on "Curry's Fork Watershed" under "Community Links."

Cartoon of Eco the Dog

Dogs can do a lot: they herd cattle, play Frisbee; some of them star in major motion pictures. But they can't pick up their own waste. You can, and you should, because Oldham County has more than 10,000 dogs, and they produce 7500 pounds of waste every day. Those droppings are a steaming pile of bacteria. You leave it on the ground and it runs off during a storm into the water we all share.

So, come on Oldham County- scoop it up. Help keep our waters clean.

[Show OCFC logo and grant funding language at bottom.]

For more information on how to keep our watershed clean, go to www.oldhamcounty.net and click on "Curry's Fork Watershed" under Community Links.

Septic P.S.A.

Scene of toilet:

Do you know what happens after you flush?

Scene of kitchen (sink):

Have you ever thought, does it matter what I put down the drain?

Scene of home laundry room:

... or how much water I use? The answers to these questions can save you money and time (protecting your system or features of your home).

Scene of a home lawn:

If your house is on a septic system, your sewage is collected in a septic tank, then filtered through the soil back into the ground water. When the system is working properly, it results in clean, filtered water.

As a homeowner, you have an important role in ensuring the long-term life and function of your system. Let's look at how your septic system works and what you should do to properly maintain it.

Scene of a septic tank fading into a cross-sectional diagram of a tank:

What happens when you flush, or when you take a shower or wash a load of laundry? When water leaves your toilet, shower, sink, or washer, it goes into your septic tank. The septic tank serves two purposes.

First it collects and holds solids and debris, such as human waste, food scraps, toilet paper, and grease. Second, it provides an environment for microbes to breakdown our solid waste. The solids that are broken down settle to the bottom as sludge; debris like grease and food particles float to the top.

(images and/or diagram of field)

The next phase of your system is the lateral (or leach) field, which is typically just under the surface of your lawn. Wastewater exits the septic tank and is discharged into a series of trenches, called lateral lines, that slowly leach the water into the soil where microbes break down and filter the waste. Good soil is one of the world's best filters. That's why a properly installed and maintained lateral field is a great way to treat wastewater.

Scene on the lawn

Now let's talk about maintenance.

Scene of a toilet

Does it matter what you put down the drain? Yes, it does. In order for your septic tank to function properly, don't put trash down your toilet or sinks.

Shot of someone pouring grease down a sink, followed by a red circle with hash through it.

Excessive grease, household chemicals, paper towels, cigarette butts, baby wipes, feminine products, plastics, and food particles can interfere with the breakdown of the waste and result in a heavier effluent leaving the tank and entering the lateral field.

Scene of a pump truck:

Even though solids break down in your tank, they do not disappear. Every three to five years, have your septic tank pumped out to get rid of sludge, floating debris and scum. This will protect your system from getting clogged. A properly equipped septic tank has baffles that block solids from leaving the tank and getting into your lateral lines. When you have your tank pump, ask the contractor to make sure baffles are in place and, if not, ask them to install them.

Scene of a tank lid and electrical components (possibly with a mower or trimmer being used):

If you have a pump tank as part of your system, protect the electrical components from harm. An alarm should be in place to let you know if your pump has failed.

Falling into a septic or pump tank is NOT what you want to do, and can be very dangerous. Your tank is required to be fitted with one or two lids that are secured with screws, bolts, or a heavy weight.

Scene of a lateral field:

To maintain your lateral field, the field should be kept open and free of any structures. Make sure that you don't damage your field by driving vehicles or heavy equipment over them. Compaction of the soil reduces its ability to absorb wastewater. Do not to dig too close to the lateral lines or construct a pool, fence, or plant trees that will impact them. And don't let the soil above your lateral lines become or remain bare. The ideal condition of a lateral field is to have a nice thick lawn on top.

Scenes from home laundry or shower:

Does it matter how much water we use and put through the septic system? In one word, yes. The volume of water that we use will affect both the septic tank and the lateral field. Heavy amounts of water, such as multiple loads of laundry in a short period of time or multiple people showering while running the dishwasher, can disrupt the digestion process in the septic tank by dilution. It also pushes heavier amounts of solids out of the tank, sending them to the lateral field where they can clog the lines. Heavy surges can also result in a temporarily smelly, saturated lawn.

Broad scene of a home and yard (panning to neighboring homes and possibly to nearby stream):

Get to know your septic system. By protecting and maintaining your system, you prolong its life, saving you money on costly repairs and preserving you home's value. It also helps to keep you on good terms with your neighbors, and will help keep the water in our creeks, rivers, and lakes clean.

This message was brought to you by an EPA grant for the Curry's Fork Watershed. For more information, go to www.oldhamcountyky.gov and click on "Curry's Fork Watershed" under "Community Links."

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OLDHAM COUNTY FISCAL COURT
100 WEST JEFFERSON STREET, SUITE 3, LAGRANGE, KENTUCKY 40031
OFFICE 502-222-1476 • FAX 502-222-3213
WWW.OLDHAMCOUNTYKY.GOV

June 6, 2014

David Garber
P.O. Box 425
LaGrange, KY 40031

SAMPLE

Dear Dave:

Oldham County's Department of Engineering and Fiscal Court are about to embark on a process to enhance the county's post-construction ordinance. The ordinance currently states that "all development/redevelopment that disturbs one or more acres is required to implement stormwater best management practices to control the first ½ inch of rainfall and provide for 85% removal of total suspended solids." The county seeks to provide more details and guidance to those complying with the ordinance. These details may include design criteria and methods, maintenance responsibilities, runoff calculation methods, and incentives.

We would like to invite you to join the county's working group to help draft the additions to the ordinance. We have selected a representative group that attempts to balance interests from development, engineering, planning and zoning, stormwater management, legislation, and the public at large. We value your participation.

We hope to meet no more than four to six times beginning the first week in July. We anticipate that meetings will be during the day and will last no more than 1.5 hours. At the end of the process, we will present the draft at a public meeting for additional comments and feedback.

If you are interested in joining our working group, please contact me either by email at bstuber@oldhamcountyky.gov or by calling 222-1476. Feel free to contact me with any questions as well.

Sincerely,

Elizabeth W. Stuber, P.E.
Oldham County Engineer

Post Construction Regulations in Louisville Metro

Ordinance vs Wastewater Discharge Regulations

- Ordinance requires Metro Council approval (more difficult to make needed changes on a new regulation)
- Wastewater Discharge Regulations are approved by MSD Board
- Changes are open to public comment

Communication

- Several meetings with HBAL.
- Open public comment periods.
- Stakeholders Group.

Applicability

- Effective Date August 1, 2013.
- Development disturbing more than 1 acre
- Development includes overall project (ie single family lots are ¼ acre but are a part of a much bigger project)
- Grandfathering. All active development plans submitted prior to August 1, 2013 and under construction prior to August 1, 2015 will be grandfathered.

Challenges

- In lieu of option
- Developing the right Green Management Practices (try before you buy)
- Often changed Design Manual
- Bringing the ideas of green infrastructure to the Development Code
- Cost. Still a moving target.
- Maintenance and Operation
    - MSD inspects every 5 years
    - Owner inspects annually
- New for everyone and we all expect change.

Curry's Fork Watershed Presents:

Post-Construction Ordinance and Green Infrastructure Design

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, to the Oldham County Fiscal Court as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant # C9994861-10.

Ordinance No. 06-830-361

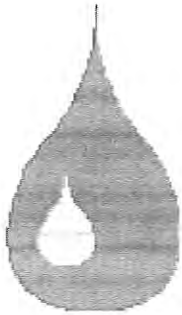
An ordinance establishing regulation for the control of post-construction stormwater, pollutants and sediment to the streams and waterways of Oldham County.

Section 3- Stormwater Quality Management

All development/redevelopment is required to implement Stormwater Best Management Practices (BMPs) to control the first ½-inch of rainfall and provide for eighty-five percent (85%) removal of total suspended solids. The County reserves the right to apply more or less stringent requirements for BMP treatment application as part of accepted Administrative Policy described in Section 4. The basis for deviation from this requirement shall be technical in nature and must be supported by appropriate combination of analysis, modeling and/or other assessments.

Kentucky Water Resources Annual Symposium

March 10, 2014



Marriott's Griffin Gate Resort
Lexington, Kentucky

UK
UNIVERSITY OF KENTUCKY
Kentucky Water Resources
Research Institute

Sponsored by
Kentucky Water Resources Research Institute
USGS Kentucky Water Science Center
Kentucky Geological Survey
Kentucky Division of Water

Session 1B

Session 1C

CURRY'S FORK WATERSHED PLAN: DATA PONDERING, ENGAGING EXPERT ADVICE, CLEANER WATER PLANS

Beth Stuber, P.E., Oldham County Fiscal Court
Carolyn Cromer, Watershed Coordinator
Corrine Mulberry, Independent Watershed Advisor
Oldham County Fiscal Court
100 W. Jefferson St, Suite 3
LaGrange, Kentucky 40031
502-222-1476
ccromer@oldhamcounty.net

Curry's Fork of Floyds Fork runs through the heart of Oldham County and is listed as a 1st priority 303(d) stream by the Kentucky Division of Water (KDOW). In 2006, KDOW awarded Oldham County Fiscal Court a $1.6 million grant through the 319(h) Nonpoint Source Implementation program to develop and implement a comprehensive Watershed Plan (WP). The plan, completed and accepted by the state in 2012, is one of the most comprehensive plans developed in Kentucky.

The sampling and assessment program was developed to identify critical pollutants of concern and to target subwatersheds for protection and restoration actions. The monitoring program included water sampling, physical habitat assessments, biological assessments, and fluvial geomorphic assessments.

Assessing this myriad of data to isolate priority pollutants of concern and target subwatersheds for BMP implementation could not adequately be accomplished by one or two individuals. The internal Watershed Plan team, comprised of the county engineer, Strand engineering consultants, and an independent watershed advisor, provided oversight on the development of the plan. The internal team formed a Water Quality Data Analysis Team, comprised of aquatic biologists, engineers, watershed managers, total maximum daily load developers, nutrient specialists, and watershed modelers, to assess multiple data conclusions from numerous monitoring approaches. The efforts of the Team resulted in Priority Pathogen Protection and Restoration maps and detailed data summaries for the Curry's Fork Technical Committee. The Technical Committee, comprised of local officials and technical experts, used the water quality data summaries and extensive GIS data to identify pollutant sources and remediation efforts - the core of the Watershed Plan.

Over 100 recommendations or Best Management Practices (BMPs) were identified to improve water quality and meet water quality standards in Curry's Fork. The Technical Committee then ranked the BMPs which were then placed into four categories: High, Medium, Low and Other BMPs for Future Consideration. Sixty-three priority BMPs were further developed and included in the Watershed Plan for protecting and improving water quality. The BMPs were targeted at specific pollutants within specific subwatersheds. These BMPs have been the guide by which the watershed coordinator, the internal team, and the Technical Committee have led the effort with BMP implementation.

Collecting detailed fluvial geomorphic and sediment data and presenting the data in a way that was most useful for developing BMPs also enabled development of a Stream Restoration Priority Map and a Habitat, Riparian, and Sediment Priority Map. These maps provide a quick visual representation of extensive and complex fluvial geomorphic data and the resulting BMP recommendations for both habitat improvement and stream restoration efforts.

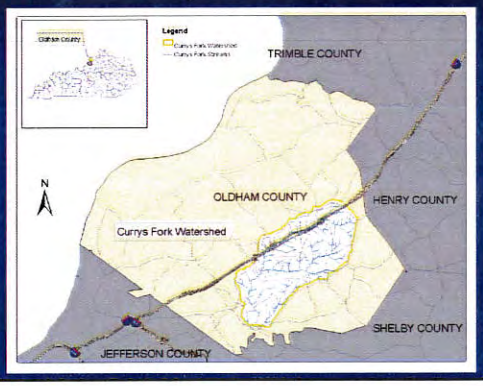
Curry's Fork Watershed Plan:

"Data Pondering
Engaging Expert Advice
Clean Water Planning"

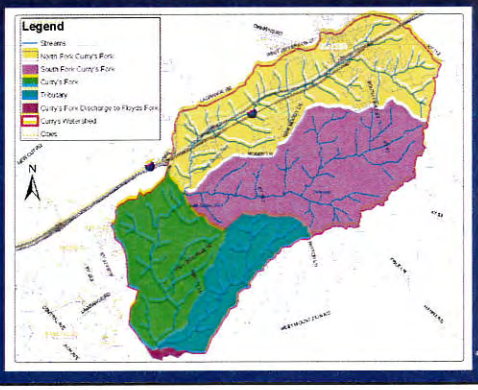
March 10, 2014
KWRRI Symposium

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, to the Oldham County Fiscal Court as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant # C9994861-10.

Curry's Fork Watershed



Curry's Fork Subwatersheds



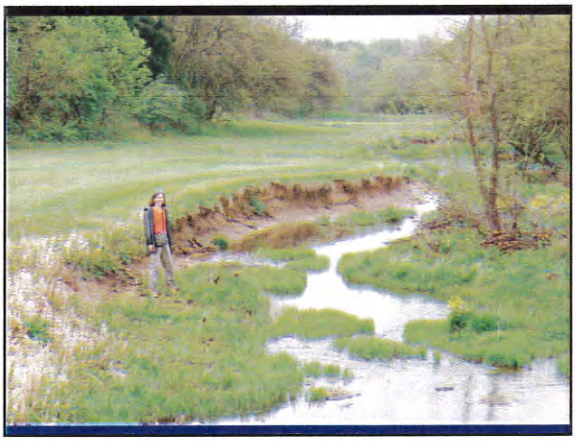
What triggered the projects in Curry's Fork Creek???

Kentucky Division of Water testing found that Curry's Fork Creek :

- Does not meet Clean Water Act standards for primary contact recreation because of bacteria in the form of fecal coliform.

Kentucky Division of Water testing found that Curry's Fork Creek:

- Does not meet Clean Water Act standards for "primary contact recreation" because of bacteria in the form of fecal coliform.
- only partially meets Clean Water Act standards for warm water aquatic habitat because of the presence of sediment, nutrients causing eutrophication, and a lack of dissolved oxygen.



Why Oldham County?

- We wanted to take a watershed-based approach with our MS4 Program
- We had proactive regulations
- Floodplain Ordinance requires 50 foot-wide buffer zone
- Subdivision regulations protect slopes
- Zoning regulations have a conservation zone limiting development in sensitive areas such as along streams

Why Oldham County?

- County Judge was committed to clean water and communicated that to Frankfort
- The U of L Stream Institute was interested in working in this general area and partnering with Oldham County Fiscal Court
- County willing to take on the match: $1.6 million total w/ 50% plan dev. & 50% implementation
- Local Government would be a stable leader for a very long-term project

Collaboration

- Internal Project Team
- Technical Advisory Committee
- Water Quality Data Analysis Team
- Public/Stakeholders

Internal Project Team

- Oldham County Engineer, Strand & Associates, Inc. and Mulberry Consulting
- "Met" twice a month
- Improved project progress, accountability and project deliverables

Technical Advisory Committee

- Formed August 2008
- Convened 17 times in 2.5 year period, most frequently in 2010 (8 meetings)
- Comprised of federal, state and local organizations and leaders
- Emphasis on LOCAL expertise, knowledge and activities

Technical Advisory Committee

(PARTIAL LIST)

Oldham Co. Fiscal Court
KY Division of Water
Oldham Co. Health Dept.
Local Residents
Oldham Co. Board of Edu.
Oldham Co. Planning & Zoning
County Magistrates
Homebuilders Association
Parks and Recreation
Army Corps of Engineers
University of Louisville
Mayor of LaGrange
Oldham Co. Conservation District
LaGrange Utilities
Oldham Co. Sewer District
Oldham Co. Stormwater
Third Rock Consultants
Strand Associates, Inc.
Oldham County Water District
USDA Natural Resources & Conservation Service
US Geological Survey

Technical Advisory Committee

Active Advisory Role:

- Inventoried Existing Watershed Programs
- Verified GIS and Water Quality Data Results at the Subwatershed Level
- Identified Probable Causes and Sources of Primary Pollutants of Concern
- BMP Selection and Priority Ranking

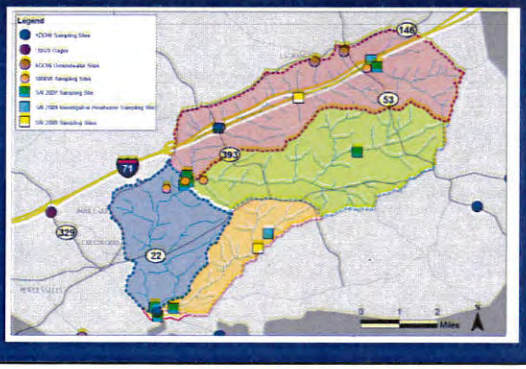
Water Quality Sampling

Pre- Watershed Plan Sampling Locations

Extensive Data Collection

- Aquatic Biological and Habitat
  - 3rd Rock Consultants
- Fluvial Geomorphology/Sediment
  - UL Geomorphology Study
- Physical/Chemical
  - Strand & Associates, Inc 2007 & 2009
- Pathogen Bacteria
  - Strand & Associates, Inc 2007 & 2009
- Historical and Other Efforts
  - USGS, SRWW, and DOW

Total Sampling Site Locations

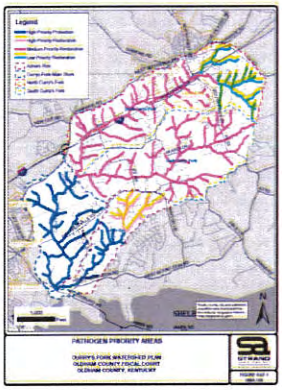


Water Quality Data Analysis

- **Extensive and Diverse Water Quality Data**
- **Time of Sampling Varied**
- **Location of Sampling Sites Varied**
- **Potential for Different Conclusions from each Data Set**
- **More**

Water Quality Data Analysis TEAM

Comprised of aquatic biologists, engineers, watershed managers, total maximum daily load developers, nutrient specialists, and watershed modelers, to assess multiple data conclusions from numerous monitoring approaches.



Pathogen Priority Map

Public/Stakeholders

- First Public/Stakeholder Meeting held December 2007
- 8 Meetings (to date)
- Incorporate Landowner Interests and Concerns
- Direct Mail Post-card Invitations
- Serve Food!
- Schedule Weekday Early Evening

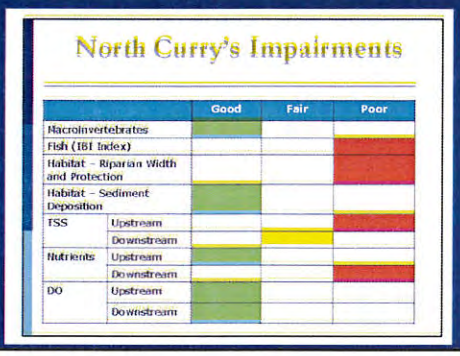
Watershed Plan Key Elements

- Identification of solutions and BMPs
- Need strong buy-in by stakeholders and technical committee
- Without support, the plan sits on the shelf

BMP Identification

- The raw data was disseminated by input from the Internal Project Team, Technical Advisory Committee, Water Quality Data Analysis Team and the Public/Stakeholders
- Easy-to-understand data summaries were made for each Sub-Watershed
- Bacteria data summary and potential solutions were looked at first
- Biological/Warm Water Aquatic Habitat was looked after the Bacteria Solutions were finished

Example of Data Summary



Priorities and Sources

- Developed by the Technical Committee and the Internal Team

Bacteria Restoration Protection Priority
The bacteria pollution protection priority in the Lower (downstream) Area of North Curry's Fork is medium priority restoration.

Pollutant Sources
The more probable bacteria pollution sources in the Lower (downstream) Area of North Curry's Fork are (Listed in no particular order or rank):

- Failing septic systems in Borowick Farms
- Stormwater from MS4 Areas (La Grange and Oldham County)
- Buckner Package Treatment Plant
- La Grange Wastewater Treatment Plant
- Permitted Household Discharge
- Stormwater leaking into sewers and taking up capacity, causing overflows and/or plant upsets

Ranking of BMPs

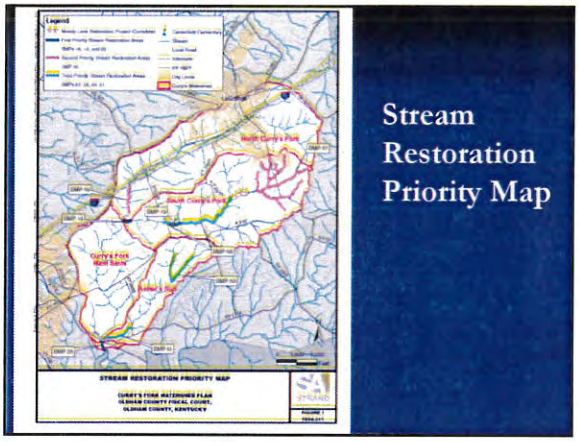
- **Based on data summaries and probable pollutant sources, BMPs were proposed for each subwatershed.**
- **The stakeholders provided input and concerns at roundtable meetings.**
- **The Technical Committee ranked the BMPs.**

Technical Committee Input

- **Overall Feasibility**
- **Cost/Funding Source**
- **Responsible Parties**
- **Public Acceptance**
- **Expected Outcome/Load Reduction**
- **Some BMPs were targeted to entire watershed. The majority were divided by subwatershed.**

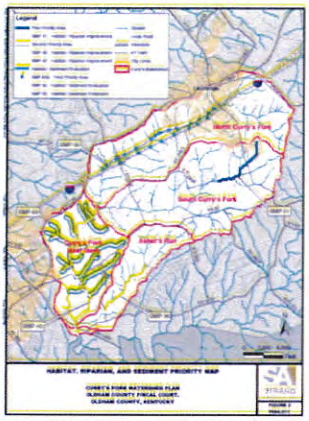
100+ BMPs were Identified!

- **Prioritization of BMPs**
- **Each BMP was given short-term, middle-term and long-term milestones.**
- **The milestones track the progress and engages the responsible parties at the right times.**



Stream Restoration Priority Map

Habitat, Riparian, and Sediment Priority Map



Rain Garden Workshop
August 10, 2013
AGENDA

9:30 Welcome and speaker introductions (Carolyn Cromer, Traci Missun)

9:40 What is a rain garden, benefits of in a watershed (Carolyn Cromer)

10:00 Site selection, calculating garden area, depth (Brad Dell)

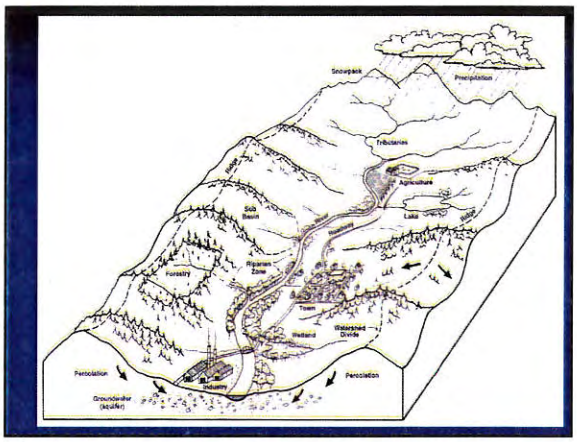
11:00 Design, plant selection, construction, maintenance (Margaret Shea)

12:20 Wrap-up (Carolyn)

12:30 Hand out lunch

1:00-2:30 Rain garden tour

- UK Cooperative Extension (Traci Missun, Master Gardener rep.)
- Dropseed Native Plant Nursery (Margaret Shea)



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, to the Oldham County Fiscal Court as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant # C9994861-06.

Stormwater Runoff

What is Curry's Fork Watershed and why is it paying for this workshop?

Stormwater Runoff entering storm drains goes straight to a nearby waterway. It does NOT go to a treatment plant first!

Porous Patios

Capture runoff

OR, slow it down, spread it out and soak it in!

Porous Pavers - Patio

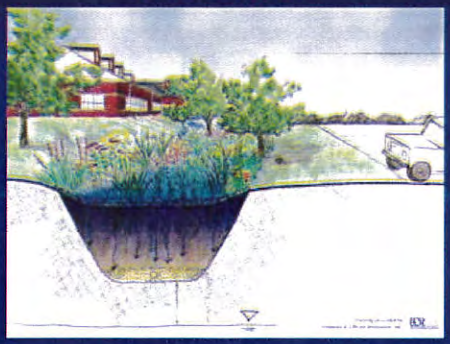
Porous Pavers - Driveway

Pervious Pavers - Patio

Porous Pavers and Vegetated Swales

Rain Barrels

Rain Garden



For more information…

check out the Curry's Fork Creek Watershed Website.

Go to www.oldhamcountyky.gov, click on Community Links and then Curry's Fork Watershed.

Rain Garden Workshop

March 29th, 9:00 a.m. to 2:30 p.m.
Oldham Co. Cooperative Extension Service
1815 North Highway 393, La Grange (in Buckner)

Learn how to locate, design, construct, plant, and maintain your garden. Then, join us on a tour of established rain gardens in Oldham County. Lunch will be provided for those attending the tour. Guest speakers include:

- Carolyn Cromer, Curry's Fork Watershed Director
- Brad Lee, University of Kentucky Extension
- Margaret Shea, Dropseed Nursery
- Vickie Miller, Oldham County Environmental Authority

Registration is required.
To register, call 502-222-9453
or email traci.missun@uky.edu

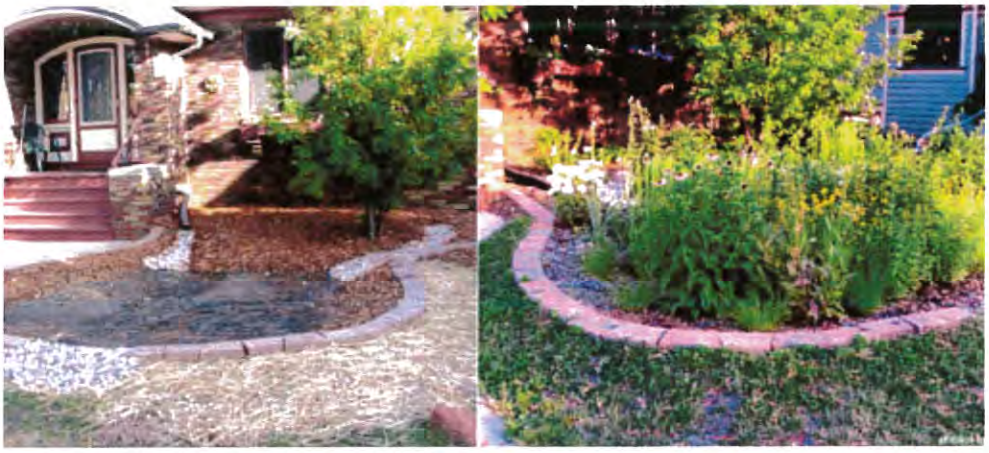
UK University of Kentucky College of Agriculture, Food and Environment

This project is funded in part by a grant from the U.S. Environmental Protection Agency under 319(h) of the Clean Water Act through the KY Division of Water to the Oldham Co. Fiscal Court (Grant #C9994861-10).

Rain Garden Workshop!

August 10, 9:30 a.m. to 2:30 p.m.
Oldham Co. Main Library
308 Yager Avenue, La Grange

Come and learn what a rain garden is and how to build one in your yard!



Learn how to locate, design, construct, plant, and maintain your garden. Then, join us on a tour of established rain gardens in Oldham County. Lunch will be provided for those attending the tour.

Registration is required. To sign up, call Carolyn at 222-1476 or e-mail ccromer@oldhamcountyky.gov by August 8!

This workshop is part of Oldham Co. Fiscal Court's Curry's Fork Watershed project, in partnership with Oldham County Cooperative Extension. For more information, go to www.oldhamcountyky.gov and click on "Curry's Fork Watershed" under Community Links. This project is funded in part by a grant from the U.S. Environmental Protection Agency under 319(h) of the Clean Water Act through the KY Division of Water to the Oldham Co. Fiscal Court (Grant #C9994861-06).

COOPERATIVE EXTENSION SERVICE
UK UNIVERSITY OF KENTUCKY
College of Agriculture, Food and Environment

OLDHAM COUNTY Established 1824 KENTUCKY

Curry's Fork Rain Garden Workshop

Rain Garden Workshop

August 10th, 9:30 am to 2:30 pm
Oldham Co. Main Library

Come and learn what a rain garden is and how to build one in your yard!

- **9:30 am to 12:30 pm** *Learn how to locate, design, construct, plant, and maintain your garden.*
- **12:30 to 2:30 pm** *Tour established rain gardens in Oldham Co. Get your questions answered. Lunch will be provided.*

Registration required. To sign up, call Carolyn at 222-1476 or write ccromer@oldhamcountyky.gov by August 8th! This workshop is part of Oldham Co. Fiscal Court's Curry's Fork Watershed project.

Oldham County Fiscal Court
100 W. Jefferson St., Ste. 3
LaGrange, KY 40031

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Louisville, Ky
Permit 319

3999 T-3 P-2 **********3-DIGIT 400
CURRY'S FORK WATERSHED RESIDENT
1520 E CRYSTAL DR
LAGRANGE KY 40031

UNABLE TO FORWARD

BC: 40031114903 *0570-00136-27-41

**** Come learn everything you ever wanted to know about your septic system! ****

Participants are eligible for a drawing for three $500 reimbursements for the repair and maintenance of your septic system!
Three households will win- it might as well be you.

What: Septic System Workshop
When: Saturday, April 12th, 9-11:00 a.m.
Where: Oldham County Health Department

Reserve your spot by contacting Carolyn Cromer, Curry's Fork Watershed Coordinator, at Oldham County Fiscal Court: 222-1476 or ccromer@oldhamcountyky.gov.

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, to the Oldham County Fiscal Court as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant #C9994861-10.

Do you know what's buried in your yard?

Do you have one of these?
Do you know how to maintain it?

Septic System Cheat Sheet!

The following items were presented as part of the Curry's Fork Septic System Workshop. Keep this sheet handy to remind yourself what you learned!

- ✓ Regularly maintain your system by pumping out the septic tank every 3-5 years, inspecting the tank, and checking for pooling or wet surfaces on top of lateral lines.
- ✓ Do not overload your system by flushing out too much water from your home at once. Rotate your appliance usage.
- ✓ Check for leaking faucets or toilets that could add excessive water to the system.
- ✓ Use bleach and other household chemicals sparingly so as not to disrupt the natural digestive bacteria in your septic tank.
- ✓ Do not flush feminine hygiene products, cigarettes, medications, paper towels, or other objects down your toilet.
- ✓ Minimize the use of garbage disposals.
- ✓ Do not drive vehicles or heavy equipment over your septic system or leach fields.
- ✓ Do not plant trees or shrubs on top of your leach fields.
- ✓ Do not pave over or build any structure on your septic tank or leach fields.
- ✓ For more information on how to get involved in improving water quality in Curry's Fork Creek, contact Carolyn Cromer at 222-1476.

Septic System Cheat Sheet!

The following items were presented as part of the Curry's Fork Septic System Workshop. Keep this sheet handy to remind yourself what you learned!

- ✓ Regularly maintain your system by pumping out the septic tank every 3-5 years, inspecting the tank, and checking for pooling or wet surfaces on top of lateral lines.
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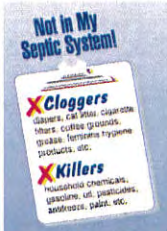
- ✓ Use bleach and other household chemicals sparingly so as not to disrupt the natural digestive bacteria in your septic tank.
- ✓ Do not flush feminine hygiene products, cigarettes, medications, paper towels, or other objects down your toilet.
- ✓ Minimize the use of garbage disposals.
- ✓ Do not drive vehicles or heavy equipment over your septic system or drain fields.
- ✓ Do not plant trees or shrubs on top of your drain fields.
- ✓ Do not pave over or build any structure on your septic tank or leach fields.
- ✓ For more information on how to get involved in improving water quality in Curry's Fork Creek, contact Carolyn Cromer at 222-1476.



Name

Agency

Address

Address1

Phone and e-mail

Kentucky
UNBRIDLED SPIRIT

For more information, contact your local health department or visit www.epa.gov/owm/onsite

EPA
United States Environmental Protection Agency

832-B-02-006

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275 E. Main St
HS1C-D
Frankfort, KY 40621
May 2013

Kentucky

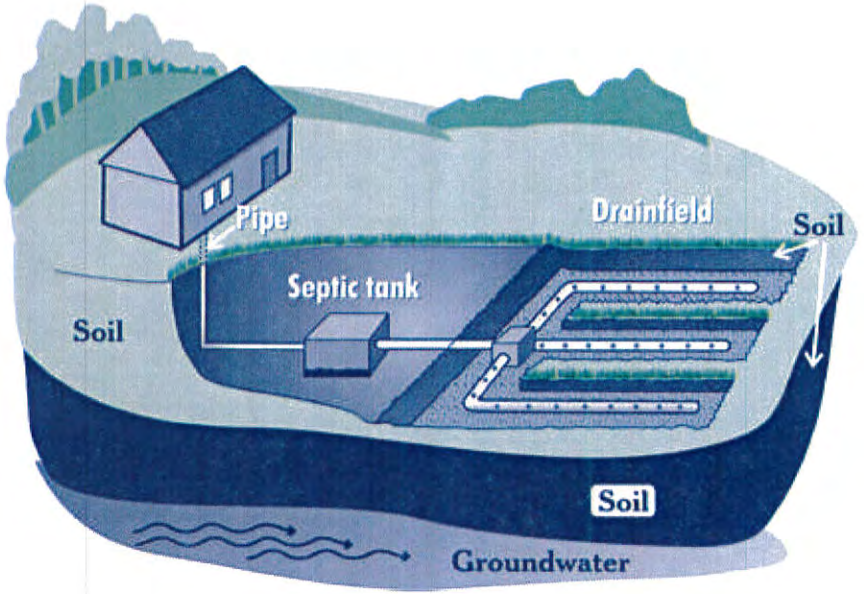
Cabinet For Health and Family Services

Department for Public Health

Homeowner Tips for

Septic Systems

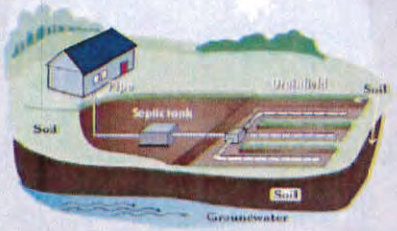
Promoting Health and Long Life



Your septic system is your responsibility!

Did you know that as a homeowner you're responsible for maintaining your septic system? Did you know that maintaining your septic system protects your investment in your home? Did you know that you should periodically inspect your system and pump out your septic tank?

If properly designed, constructed, and maintained, your septic system can provide long-term, effective treatment of household wastewater. If your septic system isn't maintained, you might need to replace it, costing you thousands of dollars. A malfunctioning system can contaminate groundwater that might be a source of drinking water. And if you sell your home, your septic system must be in good working order.



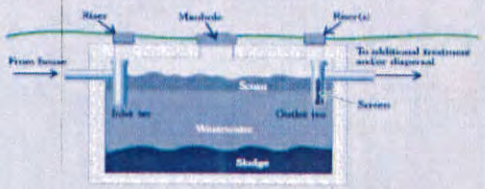
Protect Your Septic System

1. **Inspect your system (every 3 years) and pump your tank as necessary (generally every 3 to 5 years).**
2. **Use water efficiently.**
3. **Don't dispose of household hazardous wastes in sinks or toilets.**
4. **Care for your drainfield. Avoid driving or parking vehicles on your drainfield. Plant only grass over and near your drainfield to avoid damage from roots.**

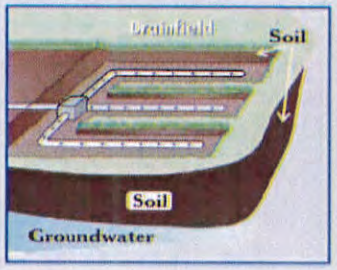
How does it work?

A typical septic system has four main components: a pipe from the home, a septic tank, a drainfield, and the soil. Microbes in the soil digest or remove most contaminants from wastewater before it eventually reaches groundwater.

The septic tank is a buried, watertight container typically made of concrete, fiberglass, or polyethylene. It holds the wastewater long enough to allow solids to settle out (forming sludge) and oil and grease to float to the surface (as scum). It also allows partial decomposition of the solid materials. Compartments and a T-shaped outlet in the septic tank prevent the sludge and scum from leaving the tank and traveling into the drainfield area. Screens are also recommended to keep solids from entering the drainfield.



The wastewater exits the septic tank and is discharged into the drainfield for further treatment by the soil.



Microorganisms in the soil provide final treatment by removing harmful bacteria, viruses, and nutrients.

Why should I maintain my septic system?

A key reason to maintain your septic system is to save money! Failing septic systems are expensive to repair or replace, and poor maintenance is often the culprit. Having your septic system inspected (at least every 3 years) is a bargain when you consider the cost of replacing the entire system. Your system will need pumping every 3 to 5 years, depending on how many people live in the house and the size of the system. An unusable septic system or one in disrepair will lower your property's value and could pose a legal liability.

Other good reasons for safe treatment of sewage include preventing the spread of infection and disease and protecting water resources. Typical pollutants in household wastewater are nitrogen, phosphorus, and disease-causing bacteria and viruses. Nitrogen and phosphorus are aquatic plant nutrients that can cause unsightly algae blooms. Excessive nitrate-nitrogen in drinking water can cause pregnancy complications, as well as methemoglobinemia (also known as blue baby syndrome) in infancy. Pathogens can cause communicable diseases through direct or indirect body contact or ingestion of contaminated water or shellfish. If a septic system is working properly, it will effectively remove most of these pollutants.

How do I maintain my septic system?

Pump frequently

You should have your septic system inspected at least every 3 years by a professional and your tank pumped as necessary (generally every 3 to 5 years).

Use water efficiently

Average indoor water use in the typical single-family home is almost 70 gallons per person per day. Dripping faucets can waste about 2,000 gallons of water each year. Leaky toilets can waste as much as 200 gallons each day. The more water a household conserves, the less water enters the septic system.

Flush responsibly

Dental floss, feminine hygiene products, condoms, diapers, cotton swabs, cigarette butts, coffee grounds, cat litter, paper towels, and other kitchen and bathroom items can clog and potentially damage septic system components. Flushing household chemicals, gasoline, oil, pesticides, antifreeze, and paint can stress or destroy the biological treatment taking place in the system or might contaminate surface waters and groundwater.

Use Water Efficiently!

- **Fill the bathtub with only as much water as you need**
- **Turn off faucets while shaving or brushing your teeth**
- **Run the dishwasher and clothes washer only when they're full**
- **Use toilets to flush sanitary waste only (not kitty litter, diapers, or other trash)**
- **Make sure all faucets are completely turned off when not in use**
- **Maintain your plumbing to eliminate leaks**
- **Install aerators in the faucets in your kitchen and bathroom**
- **Replace old dishwashers, toilets, and clothes washers with new, high-efficiency models**

For more information on water conservation, please visit www.epa.gov/owm/water-efficiency

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JUDGE-EXECUTIVE
DVOEGELE@OLDHAMCOUNTYKY.GOV

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DEPUTY JUDGE-EXECUTIVE
JBLACK@OLDHAMCOUNTYKY.GOV

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CCROMER@OLDHAMCOUNTYKY.GOV

OLDHAM COUNTY FISCAL COURT
100 WEST JEFFERSON STREET, SUITE 3, LAGRANGE, KENTUCKY 40031
OFFICE 502-222-1476 • FAX 502-222-3213
WWW.OLDHAMCOUNTYKY.GOV

Certificate of Completion

This is to certify that _____ successfully completed a Septic System Workshop for Curry's Fork Watershed on Saturday, April 12, 2014.

By completing this workshop, you have demonstrated that you are interested in the health of your watershed and are committed to being a responsible watershed citizen. Thank you, and congratulations!

_____
Carolyn Cromer
Curry's Fork Watershed Coordinator

_____
Todd LaFollette
Environmental Health Director

Curry's Fork Watershed Septic System Workshop
$500 Reimbursement Instructions for the Maintenance and Repair of Your Septic System

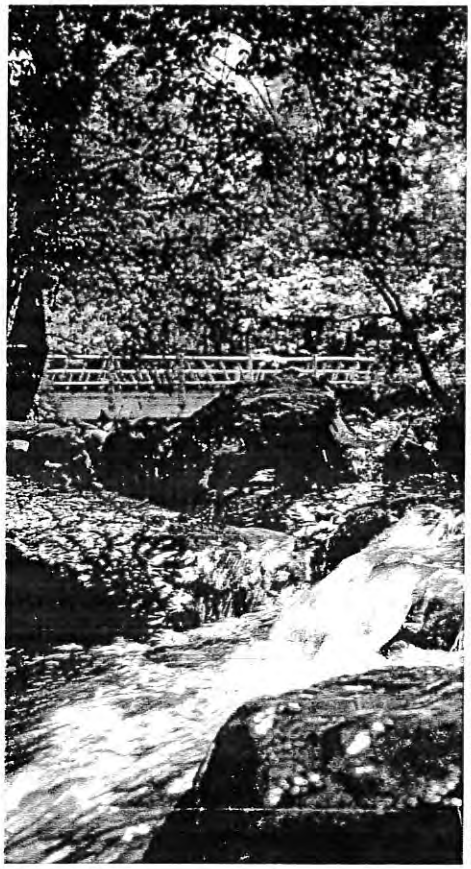
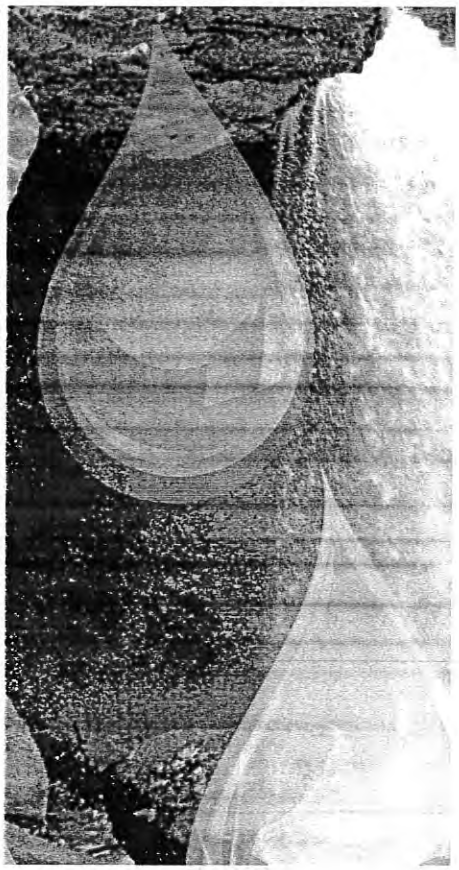
Congratulations! Your name has been drawn to receive up to $500 in reimbursements for the maintenance and repair of your septic system. In order to receive the reimbursement, the septic system must be located on property within the Curry's Fork Watershed.

Please submit any receipts for the maintenance or repair of your septic system to Carolyn Cromer, Curry's Fork Watershed Coordinator, at 100 W. Jefferson St., Ste. 3, LaGrange, KY 40031, or to ccromer@oldhamcountyky.gov. You may contact Carolyn with any questions by calling 222-1476. Receipts will be submitted to and must be approved by Fiscal Court before checks will be issued. Please allow up to 30 days after receipts have been submitted to receive your reimbursement.

If you do not use the whole $500, please notify Carolyn Cromer as soon as possible so that any available funds may be offered to other workshop participants.

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, to the Oldham County Fiscal Court as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant #C9994861-10.

Kentucky Stormwater Association

ANNUAL CONFERENCE

Owensboro, Kentucky

2014

June 25 - 27

Thursday, June 26 (continued)

Registration 8:00 AM - 4:30 PM

Concurrent Sessions

11:30 AM - 12:00 PM

East Ballroom C/D

Connecting the Dots: How TMDLs Will Impact KY MS4 Communities

John Lyons, PE, Strand Associates

Most of the watersheds in Kentucky contain streams that have either received an approved or a proposed TMDL for one or more pollutants. As the list of approved TMDLs continues to grow, it is critical that MS4 communities are paying attention, and begin to connect the dots to understand what these TMDLs could mean for future permit compliance obligations.

East Ballroom B

Building a Management Structure for MS4 Programs

Jeff Eger, HDR

Over thirty cities in the Sanitation District No. 1 (SD1) Service area were required to develop an MS4 program. A report developed through the County governments recommended SD1, assume management responsibility for this new EPA mandated program, just as it had for the Sanitary Sewers. SD1 had to build a stormwater program from the ground up. Implementing a new fee based on stormwater runoff was going to be challenging, and particularly onerous on the public and private school systems. SD1 developed the only credit program of its type in the country by allowing these school systems a credit by offering class room education to fourth grade students. Additionally, SD1 implemented new regulations governing land disturbance. Surviving lawsuits, and public outcry, SD1 is cited as a national model on how to manage an integrated program.

East Ballroom C/D

Green Infrastructure Lessons Learned Workshop

Joel Thrash, Cardno JFNew
Michael Adams, Cardno JFNew

An interactive discussion of the challenges faced by green infrastructure BMP installations and maintenance. Discussions will share considerations, past lessons learned and critical factors to consider for successful green infrastructure implementation.

THIS TRAINING WILL TAKE PLACE FROM 10:00 AM - 12:00 PM

LUNCH 12:00 PM - 1:30 PM (Exhibition Hall 3)

Concurrent Sessions

1:30 PM - 2:00 PM

East Ballroom C/D

Curry's Fork Watershed Planning and Green Infrastructure BMP Implementation

Beth Stuber, PE, Oldham County
Carolyn Cromer, Oldham County

Curry's Fork is listed as a first priority 303(d) stream by the Kentucky Division of Water. Using 319(h) grant money, Oldham County government led a comprehensive watershed study, culminating in a state-accepted plan in 2012. Local and professional groups were key to data analysis and interpretation. Several of the plan's recommendations include the promotion of green infrastructure. The county has led several efforts to educate local leaders about GI and promote its use.

East Ballroom B

Protecting Stormwater Utilities from Lawsuits

Victor Cooperwasser, PE, TetraTech

This presentation will describe how communities may develop stormwater utility engineering and accounting methodologies that have a better chance of withstanding legal challenges with the goal of funding stormwater management equitably. See how the first community established their funding structure after the Michigan Supreme Court decided that the City of Lansing stormwater utility was a tax and not a valid user fee.

East Ballroom A

Media Management Tips from a Public Relations Manager

Renee Beasley Jones, Kenergy

Have you ever struggled with how to manage media and public relations? If so, this presentation is for you. This presentation will cover the following topics:

- How to build relationships with media
- The do's and don'ts of talking with journalists
- Television vs. print
- Managing a crisis
- How to promote your message and get media attention
- Shooting photos and video for media

THIS TRAINING WILL TAKE PLACE FROM 1:30 PM - 2:30 PM

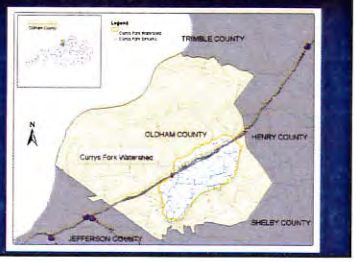
Curry's Fork Watershed Plan and BMP Implementation

Beth Stuber, Oldham County Engineer
Carolyn Cromer, Watershed Coordinator

June 26, 2014
KSA Conference

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, to the Oldham County Fiscal Court as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant # C9994861-10.

Curry's Fork Watershed



What triggered the projects in Curry's Fork Creek???

Kentucky Division of Water testing found that Curry's Fork Creek :

- does not meet Clean Water Act standards for "primary contact recreation" because of bacteria in the form of fecal coliform.

Kentucky Division of Water testing found that Curry's Fork Creek:

- does not meet Clean Water Act standards for "primary contact recreation" because of bacteria in the form of fecal coliform.
- only partially meets Clean Water Act standards for warm water aquatic habitat because of the presence of sediment, nutrients causing eutrophication, and a lack of dissolved oxygen.

Watershed Plan Team

- Internal Project Team
- Technical Advisory Committee
- Water Quality Data Analysis Team
- Public/Stakeholders

Water Quality Sampling

Extensive Data Collection

- Aquatic Biological and Habitat
- Fluvial Geomorphology/Sediment
- Physical/Chemical
- Pathogen Bacteria
- Historical and Other Efforts

Sampling Site Locations

64+ BMPs were Developed!

- BMPs were developed for each subwatershed.
- BMPs were prioritized in a three-tier priority system based on feasibility and impact.
- BMPs include action items, milestones, responsible parties, predicted cost, expectant pollutant load reduction, funding sources, and technical assistance needed.

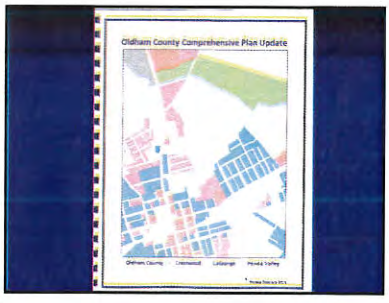
Green Infrastructure

BMP # 15:

"Educate and provide training to planners, designers, and reviewers of developments about low-impact design/green infrastructure and current and pending stormwater permit requirements."

Post-Construction Ordinance:

"All development/redevelopment is required to implement stormwater BMPs to control the first ½ inch of rainfall and provide for 85% removal of total suspended solids."



Other BMPs Developed

- Septic system workshop
- Public service announcements broadcast on county's local access station
- Riparian revegetation project
- Outreach at public events and to local organizations
- Enhanced swales

Questions?

Beth Stuber, Oldham County Engineer
bstuber@oldhamcountyky.gov
(502) 222-1476

Carolyn Cromer, Watershed Coordinator
ccromer@oldhamcountyky.gov
(502) 222-1476

PRESS RELEASE

County to Sponsor First Amazing Watershed Challenge

Contact: Carolyn Cromer, Curry's Fork Watershed Coordinator
(502) 222-1476 (o), ccromer@oldhamcountyky.gov

Oldham County government is partnering with area conservation groups to host the Amazing Watershed Challenge on Saturday, September 27th, from 9 a.m. to 1 p.m. The Challenge will be a fun way to raise awareness among Oldham County residents about the county's watersheds and how residents can contribute towards cleaner water in our waterways. The Challenge will be held at Sherwood Acres Farm, 3001 Ballard School Road in Lagrange. The event is free and open to the public; pre-registration is required to participate in the Challenge.

The Challenge will consist of two-person teams competing at six different stations. At each station, participants will learn about a topic related to water quality and then compete on how well they understand the information. Top teams will win prizes that include a family pool pass at the John W. Black Aquatic Center ($300 value), a Family Plus Dual membership to the Kentucky Science Center and Louisville Zoo ($224 value), and two free nights at a Kentucky State Park lodge ($144 value).

The event is part of the county's efforts to improve water quality in Curry's Fork Creek. The county has received two EPA Nonpoint Source Pollution grants through the Kentucky Division of Water to study Curry's Fork Creek watershed. Routine state water testing in the early 2000s found that Curry's Fork did not meet state standards under the Clean Water Act. The grants are funding a study of the watershed and implementation of the study's recommendations on how to improve water quality.

County Judge Executive David Voegele said of the Curry's Fork watershed project and the Amazing Watershed Challenge, "Fiscal Court is committed to clean water in our creeks and streams. I urge every citizen to become aware of the watersheds around us and learn what can be done to keep them clean."

Registration to compete in the challenge is open until September 8th. Space is limited. Children 4th grade and older are encouraged to participate. Each team must have at least one participant who is 18 or older. The course requires walking on uneven surfaces. Registered participants will receive a t-shirt and be treated to lunch. To register, click on the link at oldhamcountyky.gov or call 502-222-1476.

The major sponsor for the Challenge is Oldham Ahead.

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, to the Oldham County Fiscal Court as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant #C9994861-10.

Oldham County's Curry's Fork Watershed and Oldham Ahead present:

Saturday, Sept. 27, 9 a.m. to 1 p.m.
Sherwood Acres Farm, 3001 Ballard School Rd., Lagrange

Join the fun as two-person teams test their knowledge of Oldham County's creeks and watersheds while traversing Sherwood Acres Farm. Kids 3rd grade and older are encouraged to join in. Receive a t-shirt and lunch. Free!!

Compete for valuable prizes, including:

- Two free nights at a Kentucky State Park lodge
- An annual family pass at the John Black Aquatic Center
- A dual family-plus membership at the Kentucky Science Center and Louisville Zoo

To register and for more information, go to the link at oldhamcountyky.gov or contact Carolyn Cromer at 222-1476, ccromer@oldhamcountyky.gov.

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, to the Oldham County Fiscal Court as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant #C9994861-10.

Script: Amazing Watershed Challenge

Narrator: On Saturday, September 27th, Oldham County will host its first Amazing Watershed Challenge! Teams will compete for prizes that include an annual family pool pass to the John Black Aquatic Center, a dual family-plus membership to the Kentucky Science Center and Louisville Zoo, and two night's stay at a Kentucky Park Lodge.

First kid: Cool! What do we have to do?

Narrator: Team up with an adult and come learn about Oldham County's watersheds and how to keep our creeks and streams clean.

Second kid: Water's cool. I like playing in the creek.

Third kid: Yeah, I don't want to play in water that's not clean. When is it? Where do we go?

Narrator: The event is free, but teams must pre-register by September 8th. Go to the county's home page at www.oldhamcountyky.gov and click on the link to register and for more information.

First kid: Do we have to run through all the water in the county?

Narrator: Teams will compete on dry land on a 150-acre farm. Teams are not required to run. They are required to think and learn something new.

[Cut to Amazing Watershed Challenge graphic with this line:]
For more information and to register, go to www.oldhamcountyky.gov and click on the link.

[Text for the bottom of page: 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, to the Oldham County Fiscal Court as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant #C9994861-10.]

Oldham County's Amazing Watershed Challenge 2014!

Sponsorship Categories

$1,000 Clean Water Champion- *Oldham Ahead*
Limited to one. Will receive top billing on all event-related materials, including all advertising, press promotionals, and social media. The sponsor will be mentioned several times during the event, will have prominent table space provided during event, and may display banner near podium.

$750 Clean Water Defender
Limited to two. Will have logo or name on all event-related materials, including all advertising and social media. The sponsor will be mentioned several times during the event and may display banner at event.

$500 Clean Water Partner
Will receive mention on event-related materials, including social media, and will be mentioned several times during the event.

$250 Clean Water Advocate- *Oldham County Conservation District*
This level intended for small local businesses. The sponsor will be mentioned several times during the event and will be mentioned in connection with the event on social media.

$100 Clean Water Supporter- *Floyds Fork Environmental Association*

$50 Clean Water Friend

County clash
Colonels meet Mustangs Friday
Page A18

The Oldham Era

THURSDAY, AUGUST 28, 2014 | OLDHAMERA.COM | OLDHAM COUNTY'S NEWSPAPER | 75¢ | VOLUME 138 | ISSUE NO. 48 | 28 PAGES | (502) 222-7183

County opens cable franchise

BY KENNY COLSTON
EDITOR, THE OLDHAM ERA

For the first time since 1996, Oldham County Fiscal Court is advertising for a new cable franchise agreement.

The court approved the advertisement at its meeting last Tuesday after receiving a short presentation from county financial officer Stan Clark.

Clark said the county had contracted with Insight Communications for nearly 20 years ago for the franchise, but it had recently lapsed with Time Warner Communications, which bought Insight.

Clark said county officials originally sought to continue the extension of the agreement, but found out such deals can only be extended up to 20 years at a time before they have to be openly bid again.

Butterflies and Backpacks

a wagon shop, a Ford dealership, an automotive repair center and is now known as the Herdt Motor Co. building.

Pewee Valley Town Hall has had a collection of items belonging to the Herdt family on display since July, including a wicker wheelchair from the Confederate Home for homeless veterans, a railroad luggage cart and photos from the 1880s to the early 1900s.

The museum recently added a baby car-

See 'Pewee,' page A3

PHOTO BY TAYLOR RILEY/THE OLDHAM ERA

Gin Chaudoin is taken aback by seeing her family's treasures in the history museum for the first time.

in his insomnia.

"I haven't slept since Sunday," Candice McDaniel, principal at Crestwood Elementary, tells parents in the school's library, doubling as a "boo hoo, woo hoo" room on the first day of school, a Wednesday. "I went to bed at 2:30 and woke up at 5:30."

See 'Principals,' page A2

If I could write the end of the novel ... this could be it.

- Steve Emerson, South Oldham Middle principal

Challenge hopes to raise water awareness

BY KENNY COLSTON
EDITOR, THE OLDHAM ERA

Eager to highlight the county's various creeks and watersheds, county government is partnering with several conservation groups to launch the first ever Amazing Watershed Challenge.

The event, set for Sept. 27 from 9 a.m. to 1 p.m., is "loosely based" on the hit show The Amazing Race, organizer Carolyn Cromer said. It will take place at Sherwood Acres Farm, 3001 Ballard School Road in La Grange, she said, and feature various stations with conservation information.

"Mostly we want it to be fun for people," she said. "We are encouraging kids to sign up. One member of each team will need to be an adult though."

The stations will tackle subjects like best managing practices for cattle, a soil

See 'Water,' page A3

If you go

What: Amazing Watershed Challenge
When: Sept. 27, 9 a.m. - 1 p.m.
Where: Sherwood Acres Farm
Cost: Free, sign up by Sept. 8

'Cable'

Continued from A1

said.

"We don't intend to offer a 20-year agreement," he said.

Magistrates asked if anyone other than Time Warner, itself being bought out by Comcast Communications, would be interested in the county's franchise. Clark said he thought a company like AT&T could be interested in it.

County Judge-Executive David Voegele said much of the process is out of county government's hands due to the recent merging and spinning off of cable companies and territories.

"The market is limited," he said. "We may have no interest from Time Warner. We don't really have too much control."

The magistrates unanimously approved to open the franchise agreement.

Email us about this story at editor@oldhamera.com.

'Pewee'

Continued from A1

riage dating back to approximately 1885, according to Chaudoin. The carriage was held previously at the La Grange History Center.

Chaudoin said the most exciting thing about seeing all the artifacts on display for the first time was remembering the sentimental value of the items. She thanked the City of Pewee Valley for bringing it all together.

early 1900s including tax notices, checks, property values, taxes and bonds. The artifacts were uncovered over the years and placed in archival storage boxes to help maintain them, said City Clerk Laura Eichenberger.

"A lot of younger people who don't know the history can see how long their family has been here," Pewee Valley Mayor Bob Rogers said.

Also displayed is a 100-year-old meat platter and bowl from 90-year-old Pewee Valley resident Helen Smock. Smock lived with her grandmother do with them, so I thought it would be nice to give it to (the museum) because they were so old.

Rogers said the city is open to accepting new artifacts for the museum like the most recently added item, an original Little Colonel Doll. The city iwants to add items that are "special" to Pewee Valley, he said.

"(The museum) is really catching on," Rogers said. "We've added a lot of security to make sure the items are safe."

Those interested in adding historical items to the museum should call Pewee

'Water'

Continued from A1

station, a map of the county watersheds, a bug/wildlife station, water quality and green infrastructure.

The top three teams will win prizes, including a family pool pass to the John W. Black Aquatic Center, a family plus dual membership to Kentucky Science Center and Louisville Zoo and two free nights at a Kentucky State Park lodge.

Cromer said participants will be scored on their knowledge from each station and the event isn't a timed race where running is required.

She said the idea for the challenge came because there is so much going on with the county's various waterways, including Curry's Fork, Harrod's Creek and more.

"There is so much happening right now with watersheds in Oldham County," she said. "So I reached out to see if we could do something with all watersheds. When we all got together we thought something with a competition would be the best."

The competition also has the support of county government.

"Fiscal Court is committed to clean water in our creeks and streams," County Judge-Executive David Voegele said. "I urge every citizen to become aware of the watersheds around us and learn what can be done to keep them clean."

The major sponsor of the event is Oldham Ahead, who is involved in the Harrod's Creek watershed project. Executive Director Louise Allen said the group got involved to highlight that project.

"We thought it would be a perfect way to help with the education of residents on clean water," she said.

Registration to compete in the challenge is open until Sept. 8. Cromer said team space is limited and children fourth grade and older are encouraged to participate. Registered participants will receive a t-shirt and be treated to lunch, she said. To register, click on the link at oldhamcountyky.gov or call 502-222-1476.

And while Cromer isn't ready to commit to another "amazing challenge" next year, she said this wouldn't be the last year for a watershed event.

"Because this is the first event, we want to wait before committing to it again," she said. "But will we do some event in 2016."

Email us about this story at editor@oldhamera.com.

Curry's Fork Watershed
Amazing Watershed Challenge 9/27/2016
Representative Questions

Station 1: Water Quality

1. Using the pH kit provided, collect the pH data for this water body and write it down here.

2. Is the pH of the water in the appropriate range for aquatic life?

3. What sources might impact the pH?

   Multiple Choice: (can choose more than one)
   a. industrial emissions
   b. urban street runoff
   c. plant and organic material
   d. all of the above

4. Which of the following activities could help improve the quality of water in a pond? Choose the best answer.

   a. Remove all of the plants around the edge of the pond.
   b. Pour concrete along the edge of the pond.
   c. Plant native flowers, grasses and trees around the pond.
   d. Dump grass clippings in the pond.

5. At what pH value will most aquatic life (fish, amphibians, insects) be absent?

Station 1: Water Quality

1. Using the pH kit provided, collect the pH data for this water body and write it down here.

2. Is the pH of the water in the appropriate range for aquatic life?

3. What sources might impact the pH?

   Multiple Choice: (can choose more than one)
   e. industrial emissions
   f. urban street runoff
   g. plant and organic material
   h. all of the above

4. Which of the following activities could help improve the quality of water in a pond? Choose the best answer.

   e. Remove all of the plants around the edge of the pond.
   f. Pour concrete along the edge of the pond.
   g. Plant native flowers, grasses and trees around the pond.
   h. Dump grass clippings in the pond.

5. At what pH value will most aquatic life (fish, amphibians, insects) be absent?

Station 2: Livestock Best Management Practices

1. Livestock presence in areas where there is no vegetation can potentially cause:

    a. Soil erosion
    b. Manure runoff and soil erosion
    c. A new topsoil layer

2. Which of the following statements about automatic waterers is most accurate?

    a. Automatic waterers provide water from a municipal water source
    b. Automatic waterers require high maintenance
    c. Automatic waterers provide water from a municipal water source or from a natural water source like springs or ponds

3. Which of the following statements about manure piles (stall waste) is most accurate?

    a. Manure should be stacked on a surface that keeps it off the soil or in a place where rainfall will not move the manure offsite, and manure pile should be covered.
    b. Manure should be stacked on a surface that keeps manure off of the soil
    c. Manure should be stacked near the barn to make cleaning out stalls faster

4. Which of the following statements about water intake is true for an average sized cow?

    a. Water intake depends on outside temperature, and cows need 20 gallons of water per day when temperature is 90 degrees Fahrenheit and above
    b. Water intake depends on outside temperature, and cows need 10 gallons of water per day when temperature is 90 degrees Fahrenheit and above
    c. Water intake is about the same year-round, and cows need 10 gallons of water per day

5. Which of the following is the correct order of material installation for a heavy traffic/heavy use area from bottom to top?

    a. Geotextile, sand, densely graded aggregate, #4 crushed stone
    b. Geotextile, #4 crushed stone, densely graded aggregate
    c. Densely graded aggregate, geotextile, #4 crushed stone, sand

Curry's Fork Watershed
2014 Public Meeting
Amazing Watershed Challenge 9/27/14

Kentucky 319 (h) Project Annual Report Form

This annual report is vital to the continued success of the 319(h) program on a national level. The information obtained from this report will be entered into an online database that the Environmental Protection Agency maintains. The information in the database will be used to report on the environmental success and progress of the 319(h) program and could affect the levels of future funding. All BMPs implemented in the project area as a result of the 319(h) project whether or not they were paid for with 319(h) funds need to be listed. For example, if 319(h) funds are being used to pay for a watershed coordinator that is actively recruiting BMP implementation, those BMPs must be reported. If any BMPs are being used as match, the BMPs must be reported. If you have any questions about this annual report please contact your project Technical Advisor in the Division's Nonpoint Source and Basin Team Section at (502) 564-3410

Project Title	**Restoring Curry's Fork, Oldham County, Kentucky**
Project Identification Number	10-15
Reporting Period	**October 1, 2013 – September 30, 2014)**
Date Submitted	

Lead Agency	Oldham County Fiscal Court
Project Manager Name	Beth Stuber
Company Name	
Address #1	100 West Jefferson St.- Suite 3
Address #2	
City/State/Zip	La Grange, KY 40031
Phone/Extension	502-222-1476
Fax Number	502-222-3213
E-mail Address	bstuber@oldhamcountyky.gov

Curry's Fork Watershed 2014 Annual Report

Oldham county Fiscal Court Oldham County, Kentucky Grant #C9994861-10

List all BMPs implemented in the previous federal fiscal year (October 1, 2013 – September 30, 2014) with units (What unit of measurement describes the BMP ex. Fencing cattle out of the stream – linear feet of fence installed), Latitude and Longitude of the BMP (for linear BMP give the lat/long for the starting and ending point), the 12 digit HUC name and number, and the watershed area above the BMP in acres.

12 Digit HUC Number	12 Digit HUC Name	Description of Work Completed	Number of Units	Lat/Long of each BMP	Installation Date
51401020803	Curry's Fork	Septic systems pumped out	3	38.360406/-85.410735	5/6/2014
				38.324236/-85.472459	4/17/2014
				38.355681/-85.434850	6/11/2014

Shean, Jen

From: Jen Shean
Sent: Friday, October 09, 2015 3:18 PM
To: Mike.Reed@ky.gov
Cc: 'Osterman, Stefanie (EEC)'; Stuber, Beth; corrine mulberry
Subject: #10-15 annual report and clarification
Attachments: Curry's Fork 2010 Annual Report spreadsheet_2015.xls

Mike,

Due to the timing of projects for Grant #10-15 and the vacant watershed coordinator position for a portion of the fiscal year, we do not have any reportable BMP's for the 2015 Annual Report. I've enclosed the mostly blank report form, with the first informational page filled out just in case you need it for a paper trail. We look forward to reporting on the coming year's projects next fall, however.

Please let us know if you need a letter or anything else from us regarding the 2015 Annual Report.

Jen Shean

From: Osterman, Stefanie (EEC) [mailto:Stefanie.Osterman@ky.gov]
Sent: Thursday, October 08, 2015 9:18 AM
To: Stuber, Beth; Jen Shean
Cc: Jinks, Alyson (EEC); Reed, Mike (EEC)
Subject: annual report

Ms. Stuber,
Please read the attached annual report request letter for Curry's Fork. Submit your Annual Report form to your Project Grant Administrator, Mike Reed (Mike.reed@ky.gov) with a copy to Stefanie Osterman (stefanie.osterman@ky.gov) by November 13**, 2015**. The form should include BMPs installed between October 1, 2014 and September 30, 2015.

Please let me know if you have any questions.

Thank you,
Stefanie

Stefanie Cruz Osterman, MS
Environmental Tech III
EEC/DEP/DOW-Watershed Management Branch
Nonpoint Source and Basin Team Section
200 Fair Oaks Lane, Fourth Floor
Frankfort, KY 40601
(502)-564-3410 ext. 4907

Kentucky 319 (h) Project Annual Report Form

This annual report is vital to the continued success of the 319(h) program on a national level. The information obtained from this report will be entered into an online database that the Environmental Protection Agency maintains. The information in the database will be used to report on the environmental success and progress of the 319(h) program and could affect the levels of future funding. All BMPs implemented in the project area as a result of the 319(h) project whether or not they were paid for with 319(h) funds need to be listed. For example, if 319(h) funds are being used to pay for a watershed coordinator that is actively recruiting BMP implementation, those BMPs must be reported. If any BMPs are being used as match, the BMPs must be reported. If you have any questions about this annual report please contact your project Technical Advisor in the Division's Nonpoint Source and Basin Team Section at (502) 564-3410

Project Title	**Restoring Curry's Fork, Oldham County, Kentucky**
Project Identification Number	10-15
Reporting Period	October 1, 2014 -September 30, 2015
Date Submitted	Oct. 9, 2015

Lead Agency	Oldham County Fiscal Court
Project Manager Name	Beth Stuber
Company Name	
Address #1	100 West Jefferson St.- Suite 3
Address #2	
City/State/Zip	La Grange, KY 40031
Phone/Extension	502-222-1476
Fax Number	502-222-3213
E-mail Address	bstuber@oldhamcountyky.gov

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Status Photo / Video

Curry's Fork Watershed at John W Black Community Center

Throwback Thursday: Ollie Otter and Magistrate Michael Logsdon (Oldham County Fiscal Court) at Curry's FORK-fest, our spring 2016 public meeting. What a great turnout and a terrific night!

Curry's Fork Watershed

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Curry's Fork Watershed

Landowners and those interested in conservation may be want to attend a November 3 workshop "Protecting our Streams and Rivers" at the Purdue Extension office in Salem, Indiana. https://www.slideshare.net/slid... /embed_code/.../dUE2sXOwanfBtW

Purdue Stream Protection Workshop Flier - 2016-11-03 (003)

SLIDESHARE.NET

Share

Teresa Brewer Gamsky

Curry's Fork Watershed

Interested in planting some trees next to your creek? Late fall/winter is the best time to do so. Order your discounted trees now from the Kentucky Division of Forestry for planting at the perfect time! https://kydep.wordpress.com/.../division-of-forestry-taking-.../ -Photo: Ryan McGuire

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Ask for Curry's Fork Watershed's hours

http://www.oldhamcounty.net/currys-fork-watershed...

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Robert Kirtland, Curry's Fork Watershed and Teresa Brewer Gamsky

1 share

Curry's Fork Watershed Riverside, the Farnsley-Moremen Landing photo

Celebrate life on the water this weekend.

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- About
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200 years on the ohio

A LIVING HISTORY TIMELINE EVENT

saturday and sunday, september 17 and 18, 2016

10:00 AM TO 5:00 PM BOTH DAYS

admission to the event is FREE

PASTIMES • CLOTHING • TOOLS • PERIOD CRAFTS • TOURS OF THE FARNSLEY-MOREMEN HOUSE
SPECIAL PRESENTATIONS: MEET MR. LINCOLN

FEATURING AN 1860s BASE BALL GAME BETWEEN THE CINCINNATI RED STOCKINGS AND THE CINCINNATI BUCKEYES BEGINNING AT 1:00 PM ON SUNDAY, SEPTEMBER 18

RIVERSIDE
THE FARNSLEY-MOREMEN LANDING

METRO PARKS AND RECREATION

7410 MOORMAN ROAD, LOUISVILLE, KENTUCKY 40272, 502.935.6809, WWW.RIVERSIDE-LANDING.ORG

Riverside, the Farnsley-Moremen Landing

Our timeline event featuring an 1860s "base ball" game between the Cincinnati Red Stockings and the Cincinnati Buckeyes (Sunday, Sept. 18 @ 1 PM) and more is coming up on Saturday & Sunday, September 17 &18 from 10 am to 5 pm both days. Free Admission!

Share

Curry's Fork Watershed

Don't forget to PUMP IT, OldhamKY! Let's keep that poo out of our creeks. Get your septic system checked every few years. If you suspect a neighbor's system may be failing, call Oldham County Health Department.

Clear Choices Clean Water Septic Tank Management Commercial

Clear Choices Clean Water TV Spot highlighting the importance of proper septic tank management on our drinking water supply.

YOUTUBE.COM

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- About
- Events
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Curry's Fork Watershed

We're feeling a time-crunch today (and going a little stir-crazy) as we finalize grant report requirements for a three-year grant cycle! It is satisfying, however, to tally up our accomplishments over the past few years, and see what a difference the Curry's Fork Watershed Project has made to improve the quality of life in our community. We hope to share our results and conclusions at an upcoming Oldham County Fiscal Court meeting.

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Curry's Fork Watershed

Trees and Creeks Field Day - Dinner Included!
-presented by Salt River Water Watch
When: Tue, September 20, 5:30pm – 7:30pm
Where: Maplegate Farm, Crooked Creek Road, Shepherdsville, KY
Training event for Riparian Tree Planting project. ... See More

55 people reached

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Ward Wilson

Curry's Fork Watershed shared Clear Choices, Clean Water's post

Clear Choices, Clean Water

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- About
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day and can create as much as 2 – 3 pounds of waste per day? These droppings are not only u...

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Clear Choices Wants You!

Take a Pledge at Clear Choice for Clean Water!

INDIANA.CLEARCHOICESCLEANWATER.ORG

7 people reached

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Curry's Fork Watershed

As you consider fertilizing your lawn this fall, please remember that what you put on the lawn will end up in the creeks and lakes, causing algae and other problems. Please fertilize less frequently or not at all, use less fertilizer, and use a phosphorus free product (with the middle number being "0"), or use organic products.

Clear Choices Clean Water - Phosphorus-Free Fertilizer Commercial

This quick television commercial demonstrates exactly why using lawn fertilizer without phosphorus (or not...

YOUTUBE.COM

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Curry's Fork Watershed

Washing your car in your driveway can cause water pollution as the chemicals in the soap and dirt end up in the storm drain and go straight to our creeks. Instead, park your car in the grass or head to a carwash where the water is treated before entering the stream system.

29 people reached

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Curry's Fork Watershed

"On the Way to Greener Pastures: 10 Green Things That Any Church Can Do That Make a Big Difference" - a great way for faith-groups to learn how to get started on stewardship. Pass this on to your church!

Worship FX Conference, Sept 21-22, Louisville, http://wfxweb.com/2016/conference/fa2... See More

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FA2

19 people reached

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Lauren State

Curry's Fork Watershed

Looking for a way to help Curry's Fork and Oldham County Fiscal Court clean up our waterways? Shoot me a message to learn how you can help us to become an affiliate for Clear Choices, Clean Water, an educational program based on marketing research and proven strategies. We're thrilled to have found it and want to save time and money by not re-inventing the wheel. http://www.clearchoicescleanwater.org/national.php

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PUT NATURE TO WORK IN YOUR LANDSCAPE!

October 17th, 2015
9am- noon

Improve the look and value of your landscape while improving water quality in your community!

FREE WORKSHOP!

- **Native Plants for Landscapes**
- **Home Drainage Solutions**
- **Using Buffers to Protect Water**
- **Rain Gardens and Green Infrastructure**

RSVP by October 10th to 502-222-1476 or jshean@oldhamcountyky.gov
or on the Curry's Fork Watershed Facebook Page.

This free workshop will be at the Oldham County Extension, next to the police station on Dispatchers Way. Refreshments provided.

This work was funded in part by a grant from the U.S. Environmental Protection Agency under 319(h) of the Clean Water Act

Kentucky KWA Waterways Alliance
Healthy waterways. Healthy communities.

OLDHAM COUNTY Established 1824 KENTUCKY

COOPERATIVE EXTENSION SERVICE
UK UNIVERSITY OF KENTUCKY
College of Agriculture, Food and Environment

https://www.facebook.com/events/948864898518782/

Announcement for 10/6/15 Fiscal Court Mtg.

Local Conservation Groups are Providing a Free Workshop "Putting Nature to Work in Your Landscape."

An upcoming Saturday morning workshop on Oct. 17th will feature ways to improve the look and value of your landscape while improving water quality in our community!

The workshop is free, open to the public, and will be held from 9am to noon on Oct. 17th in LaGrange at the Oldham County Cooperative Extension Service, next to the police station on Dispatchers Way.

Participants will enjoy drinks and refreshments from local vendors while they learn hands-on about:

- Native Plants for Landscapes
- Home Landscape Drainage Solutions
- Using Buffers to Protect Water, and
- Rain Gardens and Green Infrastructure

Registration is required. Please call 222-9453 to register, or register online at the Curry's Fork Watershed Facebook page.

Organizers are Oldham County Cooperative Extension Service, Kentucky Waterways Alliance, and Oldham County Fiscal Court's Curry's Fork Watershed Project. This work was funded in part by a grant from the U.S. Environmental Protection Agency under 319(h) of the Clean Water Act.

Again, the Putting Nature to Work in Your Landscape Workshop will be Saturday, October 17 from 9:00 AM to noon in Lagrange. For more details or to register, contact the Oldham County Extension Service or the Curry's Fork Watershed Facebook page.

Putting Nature to Work in Your Landscape!

9 a.m. to noon on October 17th

Improve the look and value of your landscape while also improving water quality in your community!

9:00 Introduction

9:20 Native Plants for Landscapes: Margaret Shea

10:10 Solutions for Home Landscape Drainage: Kurt Mason

10:40 Intermission

11:00 Using Buffers to Protect Water: Traci Missun

11:30 Rain Gardens and Green Infrastructure: Bob Hawley

RSVP by October 10: 502-222-9453 or tessa@kwalliance.org. This free workshop is located at the Oldham County Extension next to the police station on Dispatchers Way

This work was funded in part by a grant from the U.S. Environmental Protection Agency under 319(h) of the Clean Water Act

Kentucky KWA Waterways Alliance
Healthy waterways. Healthy communities.

Oldham County Established 1824 Kentucky

Cooperative Extension Service
UK University of Kentucky
College of Agriculture, Food and Environment

Incorporating Green Infrastructure on Your Property

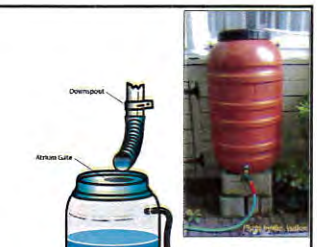
Putting Nature to Work in Your Landscape

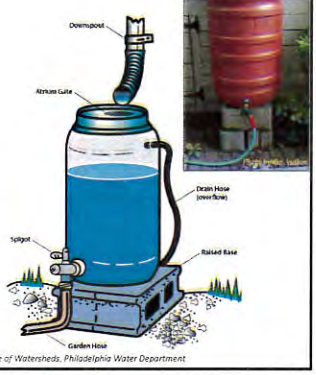
Dr. Bob Hawley

October 17, 2015

Rain Barrels

- Elevated
  - Enough to fill a watering can
  - creates pressure for garden hose
- Empty after storm events





Source: A Homeowners Guide to Stormwater Management, Office of Watersheds, Philadelphia Water Department

Planters

- Beautify patios and porches
- Intercept rain from hitting impervious surfaces

Source: A Homeowners Guide to Stormwater Management, Office of Watersheds, Philadelphia Water Department

Native Wildflower Plantings

- Open, sunny site (6+ hours of sun per day)
- Mix of grasses and flowering wildflowers
- Manage weeds during establishment

Source: A Homeowners Guide to Stormwater Management, Office of Watersheds, Philadelphia Water Department

Downspout Diversions

- Direct away from house,
  - possibly to stormwater feature
- Try to discharge >10 feet from house foundation




Rain Gardens & Planted Swales



Rain Gardens & Planted Swales

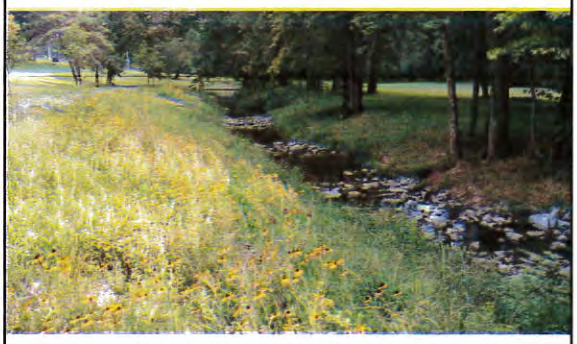


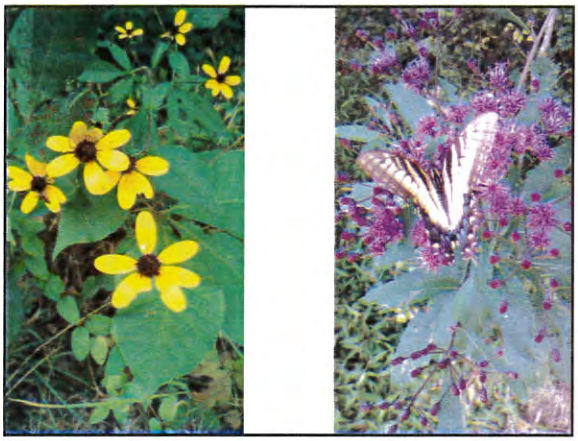
- Philadelphia's sizing example
  - *it could be deeper than 6" or even amended with a gravel bottom to promote more infiltration*

http://www.phillywatersheds.org/doc/Homeowners_Guide_Stormwater_Management.pdf

Streamside Buffers

- Suggest Leaving a mowed access area for a bench
  - Watch butterflies
  - View the stream

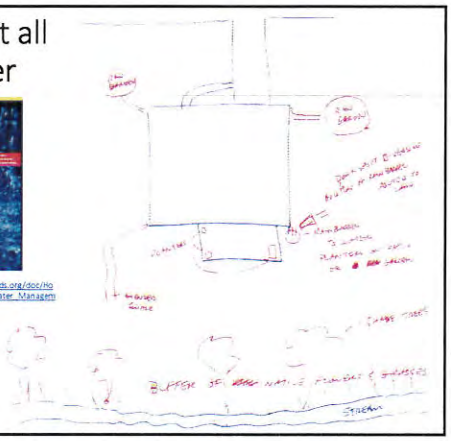





Other Considerations

Fitting it all together

http://www.phillywatersheds.org/doc/Homeowners_Guide_Stormwater_Management.pdf
good examples
p.16-32



Curry's Fork Watershed Technical Advisory Committee

AGENDA

9:30-9:50	Welcome & Introductions
9:50-10:10	Watershed Plan Overview
10:10-10:25	Implementation Initiatives Overview
10:25-10:40	Member Presentation (Oldham County Health Department: Onsite Wastewater Systems & Program)
10:40-11:00	Round Robin & Wrap-up

March 10, 2016

9:30-11:00 am

Oldham County Fiscal Court Conference Room

(2nd Floor)

CURRY'S FORK WATERSHED

Oldham County Fiscal Court
Curry's Fork Watershed
Internal Project Team

- Beth Stuber, County Engineer
- Jen Shean, Watershed Coordinator
- Corrine Mulberry, Technical Advisor

DAVID VOEGELE
JUDGE-EXECUTIVE
DVOEGELE@OLDHAMCOUNTYKY.GOV

JOHN BLACK
DEPUTY JUDGE-EXECUTIVE
JBLACK@OLDHAMCOUNTYKY.GOV

BETH STUBER, PE
COUNTY ENGINEER
BSTUBER@OLDHAMCOUNTYKY.GOV

JEN SHEAN, MES
WATERSHED COORDINATOR
JSHEAN@OLDHAMCOUNTYKY.GOV

OLDHAM COUNTY FISCAL COURT
100 WEST JEFFERSON STREET, SUITE 3, LAGRANGE, KENTUCKY 40031
OFFICE 502-222-1476 • FAX 502-222-3213
WWW.OLDHAMCOUNTYKY.GOV

Feb. 9, 2016

Amy Eichorn
District Conservation Educator
Kentucky Department for Fish and Wildlife Resources

Ms. Eichorn:

Oldham County Fiscal Court is re-engaging our Curry's Fork Technical Advisory Committee to provide an opportunity for communication and discussion among participants on technical issues related to water quality in the Curry's Fork Watershed. We would like to take a fresh look at the solutions being implemented for the watershed, as well as uncover opportunities for partnership.

Because of your importance as a community professional and your organization's involvement in Oldham County, we are requesting your guidance. Your input is important to ensure a high level of coordination and collaboration, as well as to ensure that Fiscal Court's efforts are complimentary with your organization's initiatives. We invite you to join other community leaders at the:

Curry's Fork Watershed Technical Advisory Committee Meeting
Thursday, March 10, from 9:30-11:00am
in the Conference Room (second floor) at Oldham County Fiscal Court
100 West Jefferson St. - Suite 3, LaGrange, KY 40031.

In years past, the multi-agency, multi-disciplined Technical Advisory Committee guided the development of the Curry's Fork Watershed Plan, a strategy document to guide restoration and protection efforts in the watershed. The Watershed Plan was accepted by the Kentucky Division of Water in 2012 and is available online: www.oldhamcounty.net/currys-fork-plan. The Technical Advisory Committee meeting on March 10th will bring members up-to-date on Fiscal Court-led initiatives since the Watershed Plan's acceptance, as well as begin a discussion about initiatives that other agencies and organizations are planning and implementing.

We hope your schedule permits you to be with us. If you cannot attend, please send a delegate. If there is anyone else in your organization that should also attend, please have them join us. Your participation is vital to successfully implementing the Curry's Fork Watershed Plan and improving the water quality of Curry's Fork. We look forward to seeing you on March 10th at Oldham County Fiscal Court beginning at 9:30.

Sincerely,

Beth Stuber
Oldham County Engineer, Project Lead

Enclosures (2): Technical Advisory Committee Draft Member Organization List
Technical Advisory Committee Draft Agenda

CURRY'S FORK WATERSHED

Technical Advisory Committee Meeting

Agenda: March 10, 2016 9:30-11am

1. Welcome, Logistics, Agenda Review; Introductions: Beth
2. Watershed Plan Overview: Corrine
3. Implementation Initiatives Overview: Beth/Jen
4. Onsite Wastewater (Septic): Health Dept.
5. Round Robin: Collaboration: Jen

Curry's Fork Watershed Internal Project Team
- Beth Stuber, County Engineer
- Jen Shean, Watershed Coordinator
- Corrine Mulberry, Technical Advisor

Oldham County Fiscal Court

Curry's Fork Watershed Plan Implementation Initiatives (2012 - 2016)

Prepared by Jen Shean, Watershed Coordinator
Curry's Fork Watershed Technical Advisory Committee Meeting
9:30-11am on March 10, 2016
Oldham County Fiscal Court Conference Room

This work was funded in part by a grant from the US Environmental Protection Agency under §319(h) of the Clean Water Act through the Kentucky Division of Water to Oldham County Fiscal Court (Grant # C9994861-10 and # BG954697-13).

Implementation Initiatives

Curry's Fork Watershed Project Goals: (TAC and Stakeholders)
1. Improve and protect water quality for our generation and future generations.
2. Promote a safe, healthy, and accessible watershed for recreation and wildlife.
3. Utilize programs and practices to decrease potential flooding impacts.
4. Develop and implement a cost-effective Watershed Plan that economically utilizes funds.

(2012 - 2016)
BMP Implementation Initiatives
- Partners/ Projects
- 5 Main Initiatives

Partners/Projects:

Partnerships, funding, in-kind contributions
- Ky. Fish and Wildlife
- Univ. of Louisville
- Oldham County Coop. Extension Service
- USDA/NRCS
- Oldham County Environ. Authority
- Oldham County Health Department
- Oldham County Conservation District
- Ky. Div. of Water
- Oldham-LaGrange Dev. Authority, Others

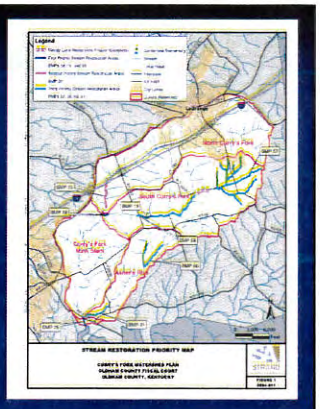
Current/Future Non-Point Source Water Pollution (319) Projects
- Implementation Project 2: 2013-2016 (3½ years) ($225,322)
- Implementation Project 3: 2015-2017 (2½ years) ($294,727)
- *Implementation Project 4: 2016-2018 (2½ years) (~ $375,000)*

5 Main Initiatives:

1. Stream Restoration
2. Outreach and Education
3. Training
4. Riparian Revegetation
5. Onsite Wastewater (Septic)

Initiative 1. Stream Restoration

High priority areas/projects were identified in the Watershed Plan



Initiative 1. Stream Restoration: First Project was Moody Lane

Initiative 1. Stream Restoration: Moody Lane Project

- 3,700 Linear Feet of restoration
- Partners: UofL Stream Institute, Ky. Fish and Wildlife
- Property Owner: OC Board of Education
- Immediate benefits:
  - reductions in erosion,
  - improvements to aquatic wildlife habitat,
  - and improvements in area flooding.

2016 Stream Enhancement Reaches

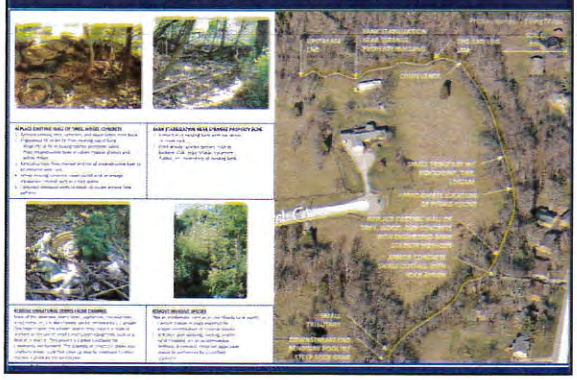
-Light-touch approach
-Concentrated at strateg points
-How can we work with what we've got
-Less costly

E. Moody Lane Reach (2500 ft)
1. Stabilize Bank at Bend Near Moody Lane.
2. Plant Riparian Veg. Adjacent to Moody Lane.
3. Stabilize Three Remaining Cut Banks.
4. Plant Riparian Veg. Adjacent to HOA Property.

Ballard Court Reach (1500 ft.)
1. Replace Existing Bank Stability Methods (tires, etc.) with Acceptable Methods
2. Stabilize Bank Near (Ballard Court) Outbuilding.
3. Remove Unnatural Debris from Channel

Similar Projects Before/ After

Ballard Ct. Reach



E. Moody Lane Reach

Initiative 2. Outreach/Education

- Restoration Project Tours
- Public Meetings/Input
  - 8 held from 2007-2014, May 2016
- Watershed Coordinator
  - Carolyn Cromer 2012-2015, Jen Shean 2015
- Speaking Engagements
  - Discover Downtown LaGrange, 4-H, Master Gardeners, schools, Carlemen's Assoc., OCEA board, the OLDA board, HOAs, Rotary Clubs, etc.
- Local Events
  - Amazing Watershed Challenge (37), Oldham County Day, OC Conservation District's Earth Day Event
- PSAs for local television
- Workshops
  - Raingardens (2013), Extension & Dropsond (40)
  - Septic Systems (2014): Health Dept. (19)
  - Landscaping (2015): (Ext. ,Darby Creek) (35)

Initiative 2. Outreach/Education

Previous efforts and . . .

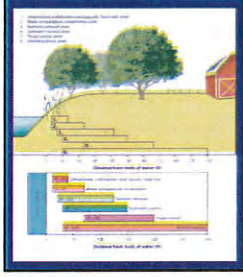
- Social Media (2015-)
- Curry's FORK-fest (2016)
- Creek Walks (2016)
- *What's Happening?*
- Cultivate Watershed Group
- Creek Crossing Signs
- Emphasis: septic, GI, vegetated riparian buffers, etc.

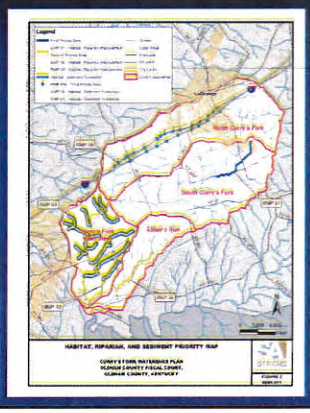
Visit us on Facebook: "CurrysForkWatershed"

Initiative 3. Training

- Green Infrastructure Field Day (25)
- Post-Construction Ord. In-Service
- Fiscal Court Magistrate In-Service
- Sponsoring Conference Participation

Initiative 4. Riparian Revegetation





Initiative 4. Riparian Revegetation

What we have:

- Channel Incising/Widening
- Erosion/Sedimentation
- Low Canopy Cover
- Low DO
- High Water Temp.

What we want:

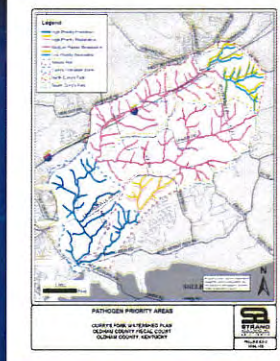
- More Stable Streambanks
- Less Erosion/Sedimentation
- Higher Canopy Cover
- Higher DO
- Lower Water Temp.

Initiative 4. Riparian Revegetation

- 6 properties in 2013-14
- > 100 woody plantings
- > 2,000 herbaceous plantings
- North & South Curry's Fork subwatersheds
- 31 volunteers: 4-H Bud Club, Master Gardeners, & Boy Scouts
- More coming in 2016, plus Riparian Buffer Campaign

Initiative 5. Onsite Wastewater (Septic) Maintenance & Repair

Watershed Plan: High Priority Restoration in Upper Asher's Run



Initiative 5. Onsite Wastewater (Septic) Maintenance and Repair

- General Education/Outreach
- Partner OC Health Department
  -Workshop (2014): Targeted Asher's Run 19 residents
  -Cost-Share Program (2016 pilot)

Implementation Initiatives Overview

- Partners/Funding
- 5 Main Implementation Initiatives:
  1. Stream Restoration
  2. Outreach and Education
  3. Training
  4. Riparian Restoration
  5. Onsite Wastewater (Septic) . . .

Round Robin:
How Can We Coordinate/Collaborate?

Do you see . . .
- ways we can help?
- collaboration possibilities?
- program duplication with your efforts?

Who: Oldham County Fiscal Court
Why:

- County Judge-Exec. committed to clean water
- Local government is a stable leader
- Voluntary efforts may prevent state intervention
- The U of L Stream Institute was willing partner
- County willing to take on the match:
- Floodplain ordinance: 50 ft. buffer zone
- Subdivision regulations protect slopes
- Zoning regs. limit development along streams

CURRY'S FORK WATERSHED

Technical Advisory Committee Meeting

Meeting Notes

03/10/2016

9:30-11:00am

Oldham County Fiscal Court Conference Room

- **Welcome and Introductions**

  25 were present: David Voegele (OCFC Judge Executive), Steve Greenwell (OCFC Magistrate), Charlie Ward (OC Health Department), Corrine Mulberry (Mulberry Consulting), Ron Thomas (Redwing Consulting), Russ Rose (OC Water), Ted Chisholm (LaGrange Utilities), Stuart Strickler (OC Schools), Kevin Jeffries (OC Planning Commission), Paul Cappiello (Yew Dell), Alan Bond (KDOW), Kenneth Powell (Veolia Water-OCEA), Jon Bednarski (OC Conservation Distr.), Justin Carter (KIPDA), Kurt Mason (USDA-NRCS), Reed Cripps (USDA-NRCS), Vic Peak (OCFC Engineers Office), Jim Urban (OCFC Planner), Todd Lafollette (OC Health Dept.), Ward Wilson (Eco-Tech Consultants), Alyson Jinks (KDOW) Dale Booth (KDOW), Lara Panayatoff (KDOW), Beth Stuber (OCFC Engineer), Jen Shean (OCFC: Curry's Fork Watershed Coord.)

  Beth Stuber, County Engineer, kicked off the meeting by reviewing the agenda and starting off introductions.

- **Watershed Plan Overview** (Corrine Mulberry, Technical Advising Consultant for Curry's Fork Watershed)
  -See attachment for presentation.

  - Judge Voegele asked "Doesn't water come in from other counties/other areas? Are others doing this type of work in their watersheds? Corrine: Curry's Fork Watershed is unique in that the entire watershed is contained within Oldham County. Jen: Yes, others in state have developed or are developing Watershed Plans.

- **Implementation Initiatives Overview** (Beth Stuber, Oldham County Engineer, and Jen Shean, Oldham County Fiscal Court- Curry's Fork Watershed Coordinator)
  -See attachment for presentation.

  - Presentation included partners/funding projects 2, 3 & 4; the large Moody Lane Stream Restoration Project with U of L, upcoming Stream Enhancement Projects, other initiatives since 2012

- **Member Presentation Onsite Wastewater Systems & Program** (Charlie Ward, Oldham County Health Department)
  -Presentation forthcoming in later e-mail.

Presentation sparked lots of conversation and questions. Magistrate Greenwell asked why sand systems fell out of favor. Charlie: The maintenance issues were too cumbersome because a crust formed that had to be broken periodically.

Kevin Jefferies asked about the status of community lateral lines that were put in in Oldham County. Charlie: The system put in included individual septics with large holding tank and community lateral lines (drip irrigation system). Most everything is reciriculated, so there is very little effluent (15%ish).

The systems at Ballard Court and Stone Ridge were mentioned in the conversation.

Buckner (condominiums) was brought up. Todd Lafollette: Homeowners must sign agreement and pay in to fund to take care of systems. Evolved into a decentralized onsite ww discussion.

Grey water separation mentioned.

- **Round Robin & Wrap-up**

Kevin Jefferies: He's interested in opportunities for funding support through for buffers & protection through agriculture as well as the planning commission. Cost-share funding is available through USDA for ag.: CRP, EQIP, CREP.

Jim Urban: Jim commented on stream buffers noting that the CO zoning needs to be changed/updated now that we have new mapping/ GIS for county zones. The CO zone is not well aligned with creeks/waterways. Rezoning the CO zone would not change landowners rights.

Vic Peake suggested identifying open space areas and leave it alone (not as part of homeowner lots). He feels that we need to keep individual homeowners off/out of the creek/open flow space.

Dr. Paul Cappiello: Yew Dell is a great venue for education/outreach of these topics. They can reach many people through Yew Dell. Curry's Fork initiatives are part of their mission.

Jon Bednarski:Cons. District is educating the agricultural community through CES , CD and USDA. Education is strong. Homeowners are not as well as informed. Need to focus education on homeowners.

Alan Bond KDOW Inspector: Most people don't know about regulations --- removing trees along buffer zone, etc.

Corrine Mulberry: OCFC is planning a reconnaissance effort this spring to locate sediment sources within NFCF I-71 corridor. Alan Bond mentioned that KYTC should have the outfalls mapped.

Todd Lafollette: Crystal Lake septic system were not designed properly for homeowners. Crystal Lake development was started as small lots, originally for vets returning from service (more camp-like vision). It evolved into permanent housing. Small lots sizes not really conducive to long term septic system treatment. Borrowick farms area is in a similar situation. Perhaps this area should be on sewers sometime in the future. He stated that he is throwing out the thought that sewer projects may need more long term view/vision.

Jen: We will meet again in the fall to tackle some of the issues brought up in the Round Robin. Thanks!

WHAT'S Happening! in Oldham County, Kentucky™

20 years of good news!

Spring/Summer 2016

Photoshop illustration of proposed statue of Colonel William Oldham

Remembering Colonel William Oldham

Oldham was the 74th county created by the Kentucky Legislature. Our birthday is February 1, 1824. Oldham County was formed from portions of Jefferson, Shelby and Henry Counties.

The County is named for Colonel William Oldham, a Revolutionary War patriot and early pioneer. He was a son of an old Virginia family and was a second cousin to George Washington. Oldham's grandmother and George Washington's mother were half-sisters.

As the 200th anniversary of our county draws near, it is appropriate to bring Colonel Oldham's valor and bravery back to the attention of our community by placing a memorial statue of Colonel Oldham on the courthouse square. It will be the first piece of public art in Oldham County.

To learn more about our county's namesake, see page 2.

In this issue:

by the American Army. It is also the largest victory ever won by American Indians.

Oldham County named for Colonel Oldham

After the full scope of what happened became known, Kentuckians were very angry. As a new county was formed more than 30 years later, the memory of Colonel Oldham and other men who lost their lives on the Wabash River was still present. A final salute was extended to their leader, Will Oldham, with naming of a new county.

Unfortunately, as decades have passed, the history of how Oldham County received its name slipped into obscurity. As the 200th anniversary of our county draws near, it is important to remember our frontier heritage by bringing back to the attention of the community the valor and bravery of Colonel William Oldham.

Statue to recognize Oldham

The statue of Colonel William Oldham, to be placed in the center of the new plaza on the courthouse square, will be made of bronze and be approximately seven feet tall. It will be the first piece of public art in Oldham County.

It will stand on a partially completed Doric column of white Indiana limestone — partial completion representing the life of a public-spirited individual not lived to full completion.

The sculptor of this statue will be Matt Weir, a rising young Louisville artist with many significant credits. The anticipated cost of this project is $135,000. Thus far, donations of $75,000 have been received or pledged. Additional donations are welcome from individuals and groups in the community who wish to participate.

Appropriate recognition will be given to donors.

Sincerely,

David Voegele

David Voegele
Judge Executive

HOW YOU CAN HELP

Donations are tax deductible.

Please make checks payable to:

Oldham County
Fiscal Court
100 W. Jefferson Street
Suite 4
LaGrange, Kentucky 40031

Or by using a credit card at:

www.oldhamcountyky.gov/colonel-william-oldham-statue

Curry's Fork Watershed

CURRY'S FORK-FEST!

Join us for a FREE DINNER!
Learn about efforts to improve Curry's Fork Watershed

Thursday, May 12 • 6 to 8 pm
John Black Community Center
1551 N Hwy 393, La Grange
To reserve your fork, RSVP required by May 5!

Curry's Fork Watershed

Protect waterways and property with no-mow zones

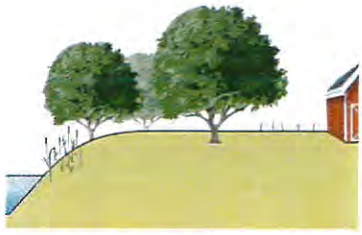
Do you have a waterway or ditch on your property? Give yourself a break from mowing and establish a no-mow buffer zone to benefit your property and improve water quality.

The root systems of natural plants and bushes in a buffer zone hold soil in place and slow down rainwater runoff. The result: Bank erosion is stabilized and your property is protected.

If your no-mow buffer zones are degrading, improve them by planting trees and shrubs or just let nature do the planting for you.

Healthy buffer zones:

- Stabilize streambanks.
- Reduce erosion.
- Provide wildlife habitat.
- Increase beauty.
- Reduce sediment and chemicals from runoff.
- Provide shade to cool down stream water for healthy plants and animals, and to prevent algae.



Contact Us/ Register for FORK-fest:

- jshean@oldhamcountyky.gov
- Jen Shean (Watershed Coordinator): 502/222-1476, ext. 1403
- Register on Faceboook: CurrysForkWatershed/Events

An effort of Oldham County Fiscal Court, this work is funded in part by a grant from the US Environmental Protection Agency under 319(h) of the Clean Water Act.

Salt River Basin Edition
January 2016

The mission of the Watershed Management Branch is to protect and restore the beneficial uses of the waters of the Commonwealth by managing water quality and quantity, facilitating stewardship and promoting cooperation among stakeholders.

Visit Our Website

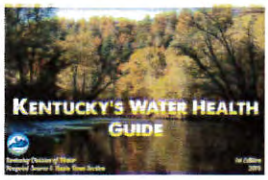
Are you building green infrastructure in your community? We want to hear about it! Contact your Basin Coordinator to tell them all about it and learn how the Division on Water can help support your efforts!

IN THE NEW YEAR

Leopold Conservation Award Program Seeks Nominees in Kentucky

The Leopold Conservation Award is a competitive award that recognizes landowner achievement in voluntary conservation. The award consists of a crystal sculpture depicting Aldo Leopold and $10,000. Sand County Foundation presents Leopold Conservation Awards in California, Colorado, Kansas, Kentucky, Nebraska, North Dakota, South Dakota, Texas, Utah, Wisconsin and Wyoming... read more.

IN THE WATER

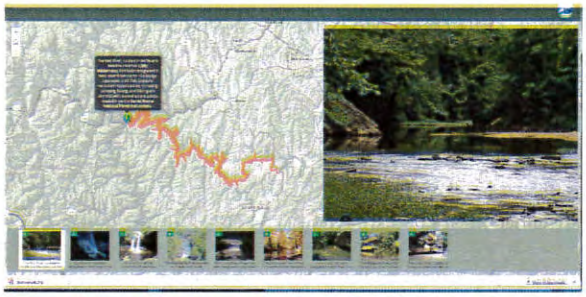


Puzzled by TMDLs or want to know more about springs and caves in your area? Click on Kentucky's Health Guide to learn about all those topics and much more!

Share

Tweet

Forward



Explore Your Watershed with the Kentucky Wild Rivers Story Map

The Kentucky Wild Rivers Story Map highlights the unique scenic, biological, geological, cultural and recreational values of its most pristine rivers. The Wild Rivers program was established by the Kentucky Wild Rivers Act of 1972.

IN THE NEWS

Bipartisan Action Makes Conservation Easement Incentives Permanent

Conservation easements are used to protect agricultural

resources for future generations. These voluntary legal agreements provide tax deductions for landowners when they reduce the value of their land by giving up their development rights in perpetuity. Congress just upped the ante by enhancing the tax deductions... read more

---

COMING UP...

What's Happening Near You?

Ag Boot Camp

Confused about environmental regulations for agriculture? Environmental regulations can be confusing. How we manage and interact with our land, air and water resources can have large impacts on the health of the environment. Join us for a one-day environmental boot camp designed for the agricultural community and those who work with the community.

Feb 16, 2016 Princeton, KY

Feb 23, 2016 London, KY

March 8, 2016 Radcliff, KY

Curry's Fork Watershed Needs Your Help!

Curry's Fork Watershed, located in southern Oldham County, Kentucky, is a tributary of Floyds Fork within the Salt River Basin. Curry's Fork Watershed continues to be listed as impaired in Kentucky Division of Water 's most recent *Integrated Report to Congress on the Condition of Water Resources in Kentucky 2012.* Curry's Fork Watershed is gearing up for a busy year in 2016, and

planning creek-walk education events, stream-side planting events, a community stakeholder meeting, education opportunities at local events, and much more. Whether you like to get muddy, love working with people, can best offer help from your computer, or prefer to be a watershed shutterbug, we've got a way for you to get involved. If you're interested in volunteering, please contact Jen Shean at jshean@oldhamcountyky.gov.

We've also started a robust social media campaign in order to keep our community updated on what we're up to. Make sure to "Like" and "Follow" our page to learn how you can be a better watershed steward, whether you're in Curry's Fork or not: facebook.com/CurrysForkWatershed/.

In addition to our outreach efforts, we're planning a stream enhancement project, septic system maintenance and repair cost-share program, and riparian re-vegetation projects. Again, check us out on social media to see how these projects are progressing, and help "Clean Up Curry's Fork."

Do you have an event you'd like to tell us about? Send an email to the Salt River Basin Coordinator at dale.booth@ky.gov

Curry's Fork Watershed
Curry's FORK-fest Public Meeting

AGENDA

May 12, 2016

6:00-8:00 pm

John Black Community Center

6:00-6:15	Registration, Material Review, & Locate your Watershed
6:15 - 6:20	Welcome
6:20- 6:30	Water Quality and Watershed 101
6:30-6:50	Watershed Plan Overview
6:50-7:20	Watershed Plan Implementation Initiatives Property-owner Resources
7:20-7:50	Questions & Answers, Community Concerns
7:50 – 8:00	Door prizes, Adjourn

CURRY'S FORK WATERSHED

Speakers

- Beth Stuber, County Engineer
- Jen Shean, Curry's Fork Watershed Coordinator
- Corrine Mulberry, Curry's Fork Technical Advisor
- Dale Booth, Salt River Basin Coordinator Ky. Div. of Water

PRESS RELEASE

County Hosts Curry's FORK-fest, A Watershed Education Dinner

Contact: Jen Shean, Curry's Fork Watershed Coordinator
(502) 222-1476 (o), jshean@oldhamcountyky.gov

Oldham County Fiscal Court is hosting Curry's FORK-fest, A Watershed Education Dinner, on Thursday, May 12th, 2016 from 6 to 8 p.m. Curry's FORK-fest will be a fun way for residents to learn how they can contribute to cleaner water in local creeks and streams, while sharing a meal with fellow Oldham Countians. The educational dinner will be held at The John W. Black Center, 1551 North Hwy 393, in LaGrange. The event is free and open to the public, but registration is required by May 5.

The evening will consist of a modest dinner catered by local favorite Big R's and Shannon's BBQ, along with local musicians, a visit from Ollie the Otter, and watershed education presentations. A Watershed Report Card will be shared with attendees to provide them with a snapshot of the area's water quality. Participants will learn about local efforts to improve water as well as simple things that residents can do to reduce water pollution.

The event is part of Oldham County's efforts to improve water quality in Curry's Fork Watershed, which encompasses most of the City of LaGrange. State water testing in the early 2000s found that Curry's Fork did not meet Clean Water Act standards. Oldham County received grants to study the issue, develop a plan, and work to improve water quality. In 2012, the Commonwealth accepted the Curry's Fork Watershed Plan, which targets and guides restoration and protection efforts. The County is now implementing the solutions recommended in the Plan and expects to meet water quality standards in the future as a result of these efforts.

The County urges interested citizens to join local residents May 12th for a fun (and filling) evening for clean water. Register for Curry's FORK-fest by May 5th by contacting the Watershed Coordinator (Jen Shean) at (502) 222-1476 or jshean@oldhamcountyky.gov, or register online at www.facebook.com/CurrysForkWatershed/events.

Funding for this project is provided in part by a grant from the U.S. Environmental Protection Agency through the Nonpoint Source Section of Kentucky Division of Water to the Oldham County Fiscal Court, as authorized by the Clean Water Act Amendments of 1987, 319(h) Nonpoint source Implementation Grant #C9994861-10.

CURRY'S FORK WATERSHED

presents:

CURRY'S FORK-FEST!

Free Dinner: with a side of watershed update

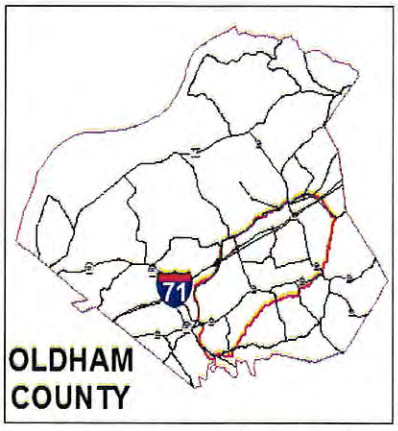
May 12, 2016 6-8pm John W. Black Center

Register for FORK-fest by May 5:

-Facebook.com/CurrysForkWatershed/Events

-e-mail: jshean@oldhamcountyky.gov

-or call Jen Shean (502) 222-1476, ext. 1403



Curry's Fork Watershed

Follow Us! *Facebook.com/CurrysForkWatershed*

An effort of Oldham County Fiscal Court, this work is funded in part by a grant from the US EPA under 319(h) of the Clean Water Act.

Community in Brief

KFB certifies Sherwood

Sherwood Acres Beef of Oldham County is one of 88 certified farm markets across the Commonwealth accepted into the 2016 Kentucky Farm Bureau (KFB) Certified Roadside Farm Market Program.

Sherwood Acres Beef raises all natural Scottish Belted Galloway beef cattle on its farms in Oldham and Henry counties. Their cattle are humanely treated and raised without the use of hormones, steroids, or antibiotics under a "natural label." They offer freezer beef that is USDA inspected and dry-aged in vacuum-sealed individual cuts year round at their market on Parker Drive in La Grange.

Farm tours are available by appointment. For more information, visit www.sherwoodacresbeef.com, call (502) 222-4326, email info@sherwoodacresbeef.com, or follow them on Facebook.

GED testing available

Adults ages 18 and up, who do not have their high school diploma or GED and are not enrolled in a traditional K-12 school are encouraged to contact Oldham County Adult Education to find out more about how to prepare for taking the GED test.

To be eligible to take the GED test, participants must pass the GEDReady test. The Adult Education Center at the Oldham County Arts Center in Crestwood is open Monday and Tuesday in the La Grange Community Center at 307 W. Jefferson Street on Thursdays only. Appointments are needed.

In order to qualify for the 50 percent off testing, students must complete GED testing by May 31. Appointments should be made by May 1.

Contact Oldham County Adult Education at (502) 241-6018 for more information or to schedule an appointment. Please mention that you are interested in the 50 percent off GED testing offer.

Watershed dinner planned

Curry's FORK-fest: a free watershed dinner, will be held May 12, 6 p.m., at the John W. Black Community Center in Buckner. Discussion during dinner will outline efforts to improve the Curry's Fork Watershed in Oldham County and water quality in this community.

Please RSVP by May 5. Register through the Facebook event, "CurrysForkWatershed/Events," and provide the number of attendees. Email your reservation to "jshean@oldhamcountyky.gov" with "Forkfest" in the subject line or call Jen Shean, watershed coordinator at (502) 222-1476, ext. 1403.

Blood donation times

Each year, the local and global impact of the Red Cross mission is celebrated on May 8, the birthday of International Red Cross and Red Crescent Movement founder Henry Dunant.

Currently, donors of all blood types are needed to give and help save hospital patients' lives. Every day, the Red Cross must collect approximately 14,000 blood donations to meet the needs of patients across the country.

To make an appointment to give blood, download the free Red Cross blood donor app, visit redcrossblood.org or call 1-800-RED CROSS (1-800-733-2767).

Upcoming blood donation opportunities:

- May 1, 8:30 a.m. to 12:30 p.m. - Crestwood Baptist Church, 6400 Sweetbay Drive, Crestwood
- May 1, 1 to 6 p.m. - South Oldham Fire Dept., 6310 Old La Grange Rd., Crestwood
- May 10, 2 to 7 p.m. - Mt. Tabor United Methodist Church, 3301 West Highway 22, Crestwood

BBBS calls for volunteers

Big Brothers Big Sisters of Oldham County is looking to expand the amount of "bigs" in the community. Friday, April 29, a complimentary lunch will be held at Cornerstone Grill, 4773 Fox Run Road in Buckner, from 11:30 a.m. until 12:30 p.m. for those hoping to learn how to be a matchmaker for the children served in Oldham County. Currently a waiting list in Oldham County. Please RSVP at https://www.eventbrite.com/e/be-a-matchmaker-lunch-tickets-24756274684.

American Legion to meet

The monthly meeting of the Oldham County Post #39 American Legion will be May 5 at 7 p.m. in the lower level of the Oldham County Post #39 American Legion building located at 2301 West Highway 146 at the eastern end of the Oldham Fairgrounds in La Grange. Refreshments will be available. All veterans are welcome.

Mothers Day workshop

The Arts Center will offer a workshop centered around creating original pieces of ceramic art suitable for Mother's Day on Saturday, April 30, from 10 a.m. to noon. The workshop is open to ages four through adults (children to be accompanied by an adult).

For $15, each participant will receive a pound of clay to make clay flowerpots, roses or other special gifts that are unique and decorated with a personal touch. Items will be glazed during the workshop and will be fired and ready for pickup May 6. Please call the Arts Center at (502)241-6018 to reserve a space.

Watershed Plan Overview

Watershed Plan Basics
Clean Water Act Basics
Curry's Fork Watershed Plan

Corrine Lowe Mulberry
CF Watershed Technical Advisor

What is a Watershed Plan?

A watershed plan…

- is a flexible framework designed to protect and restore water quality in a watershed;
- includes strategies to address the most important issues;
- includes point and nonpoint source control strategies;
- identifies and prioritizes BMPs (solutions) to be implemented to meet Clean Water Act goals.

Clean Water Act Basics

- Fishable, Swimmable, Drinkable Goals
- Defined as "Designated Uses"
  - Primary Contact Recreation (PCR)
  - Secondary Contact Recreation (SCR)
  - Warmwater Aquatic Habitat (WAH)
  - Coldwater Aquatic Habitat (CAH)
  - Fish Consumption (FC)
- Narrative and Numeric Criteria

Water Pollution Blame

Most Significant Source of Water Pollution

Everything that we do on the land will affect our water.

Point Sources

Sewage treatment plants

Industrial wastewater

Power plant cooling water

Nonpoint Sources

Field crops/Pasture

Parking lots/Roadways/Sidewalks

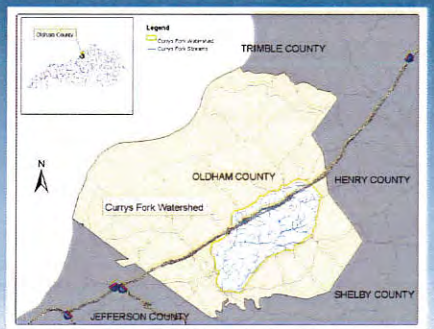
Residential lawns

Why Plan?

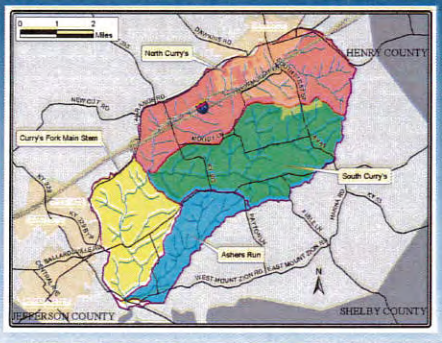
Improve Success!!!

- Lessons from implementing the Clean Water Act
- Improve Collaboration and Coordination
- Minimize Duplication
- Secure Limited Funding with Increasingly Coordinated Goals
- Use Scientific Data vs Blame Game

Curry's Fork Location



Curry's Fork Subwatersheds



A Look Back…

Timeline

2004 – Curry's Fork Watershed Project idea initiated

2005 – Oldham County Fiscal Court applied for 319(h) Grant funding to develop Plan

2007 – Memorandum of Agreement & Contracts executed, Data Collection Started

2008 – Stakeholder/Public Outreach Started

2010 – Formalized & Expanded Watershed Technical Advisory Committee

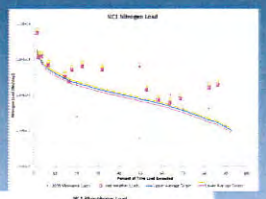
Extensive Data Collection

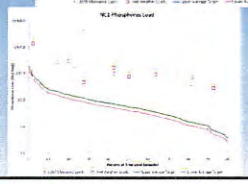
Ashers Run

Sampling Points

North Curry's Fork – Lower

- Data Results
  - Highly elevated nutrient levels
  - Elevated TSS during wet weather conditions
  - Elevated Ammonia





What Did We Find?

Limited Streamside Vegetation

South Curry's Fork

Ashers Run

Significant Stream Bank Issues

Increase flow = increase in erosive forces

Curry's Fork Main Stem

Stormwater Issues

North Curry's Fork

Huge Collaborative Effort

- Nearly 3,000 individual data points plus continuous flow and turbidity samples and numerous assessments performed by UL, 3rd Rock, and others
- 6 Stakeholder Meetings
- 18 Technical Committee Meetings (70+ Participants)
- 3 Water Quality Data Analysis Team Meetings
- 3 Community Roundtables (100+ Participants)
- Participation from 20+ Agencies/Organizations

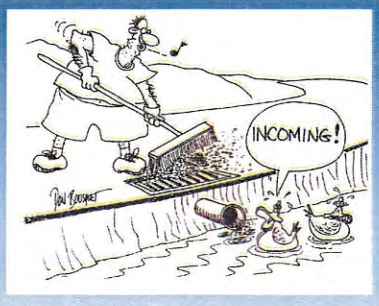
BMPs/Solutions

- 107 BMPs/Solutions Identified
- Pollutant Specific
- Subwatershed Targeting
- TAC Ranked BMPs/Solutions
- 63 Priority BMPs/Solutions Identified

KDOW Approval

- Curry's Fork Watershed Approved (Accepted) by Kentucky Division of Water **Spring 2012**
- Curry's Fork Watershed Plan used as a "model" by KDOW and EPA

Slow it down, Spread it out, Soak it in



Curry's FORK-fest Public Meeting 2016

The Oldham Era
Your News Since 1876

Plan hopes to improve Curry's Fork Watershed

By Glen Jennings
Thursday, May 19, 2016 at 6:00 am *(Updated: May 19, 6:01 am)*

A finalized plan has given Oldham County Fiscal Court and the Kentucky Division of Water direction on how to improve water quality in the Curry's Fork Watershed by reducing pathogens and water temperature.

Judge-Executive David Voegele attended the Curry's Fork Fest, where he met Ollie the Otter.

The plan is a large document that outlines strategies for improving water quality in the watershed. Curry's Fork Watershed Coordinator Jen Shean explained that a watershed includes all land where water flows into one location.

The Curry's Fork Watershed begins in the southern end of La Grange and stretches south across Highway 53 until it intersects Highway 22 and continues east to the edge of Crestwood, dipping below 22 until meeting Highway 1408.

It also includes several hazards.

"We have impairments in the watershed," Shean said. "We don't meet the standards of the Clean Water Act for the designated uses of some of the creeks."

Those standards, Shean said, include safety for swimming and fishing.

"We're not up to par," she said. "There are two main standards that we're having an issue with. One of them is warm water. Can aquatic life like fish live in it? That one, we're not meeting in certain areas. The other one is pathogens. There's E. coli and bacteria in the water in certain places."

Shean explained that although a common image of water pollution involves industrial causes or dumping, known as point source pollution, most water pollution, called non-point source pollution or runoff, is not so easy to track.

"Those sorts of things are regulated. They have to have a permit to do any discharge," she said. "Non-point source is much more difficult because it's all of us that are contributing. You can think of it as rainwater running off into the creeks."

In non-point source pollution, also called runoff, water picks up pollutants with it when flowing to natural water sources such as rivers and creeks.

In 2004, environmental departments began studying the water quality in the Curry's Fork Watershed. Using an Environmental Protection Agency grant acquired in 2005, the Kentucky Division of Water teamed with Oldham County Fiscal Court to create a plan to address issues in the Curry's Fork Watershed. The Watershed Plan was approved in 2012.

"Now, we're in the implementation phase," Shean said. "We've been doing vegetation projects on the sides of streams where it needs it the most, as well as septic cost share programs to help people in areas where pathogens are the biggest problems and where we can most easily improve it. We've also been doing training for staff members as well as public education."

Education efforts have included articles in local publications, public service announcements and frequent updates on the Curry's Fork Watershed Facebook page.

It also included a special public meeting May 12, called Curry's Fork-Fest, that included music, catered barbecue, and a presentation about watersheds and ways to keep them clean.

Oldham County Judge-Executive David Voegele, several magistrates and residents from the Curry's Fork area all attended the meeting to hear both state and county water experts speak.

In order to help ease the financial burden of maintaining waterways, Shean said the watershed efforts will include a cost-share program to help people keep their septic systems in good working order. She recommended hiring a professional to pump septic tanks every three to five years.

In addition to keeping septic systems in good repair, Shean suggested several other methods for decreasing the impact of

non-point source pollution.

One preventive measure is to create a buffer zone of plants around waterways to reduce erosion. Homeowners who live near water can do this by leaving out creekside areas when mowing their lawns.

"Just don't mow it," Shean said. "If you want to plant in it, that's fine, but just make as big a buffer as you can get."

Shean also suggested picking up after pets and avoid dropping potential pollutants down storm drains, since most storm drains empty directly into the creek.

She advised washing cars in the grass to avoid algae growth as well as adding rain barrels to catch water from drainpipes.

In addition, she described methods to plant rain gardens.

"[It is] pretty much a deep indentation in your landscape that can catch water and hold it for a little while before it hits the system," she said. "If you want to go the extra mile, we are happy to help you put in something like a rain garden."

Shean said that while Curry's Fork has issues, there are still many opportunities to improve the water quality.

"We still have a chance," she said. "A lot of places that are further developed, it's too late for them. They have to retrofit, but we have a chance to look ahead. We have a plan, and if we follow the plan, we can get to a point where we're cleaning our water and we're not flooding our roads."

Oldham County Fiscal Court, Curry's Fork Watershed

10-15 Grant: Pilot Onsite Wastewater Cost-share Program

2016 Internal Implementation Plan

Watershed Coordinator (WC) will contact homeowners that previously participated in OSWW workshop to inform them of the costshare program, and see if they are interested in participating. WC will send notification letter about program, along with applications.

If interested, homeowner will send in completed application for either a pumpout (Option A) or repair (Option B) to WC. WC will copy application, add them to spreadsheet of potential participants.

A). Submit application for Pumpout only Cost-share Program: Homeowners will complete application for pumpout (Appendix A) and send to WC.

- WC reviews and if approved, sends notification and voucher to homeowner.
- Homeowner has certified septic pumping company perform basic visual inspection of system before perform pumpout.
    - If system looks to be functioning properly, pumper completes pumpout.
    - If system does not appear to be functioning, pumpout should not be performed and homeowner should contact WC to apply to repair cost-share program (Option B).
- Pumper invoices homeowner.
- Homeowner pays full invoice with **a check only** (not with credit cards), sends
    - copy of paid invoice (verified payment from pumper), and
    - a copy of the cancelled check to WC before deadline. NOTE: Credit card payments will not be acceptable.
- WC processes invoice with FC to reimburse homeowner for 75% of invoice. (up to $500 total invoice, so highest reimbursable amount would be $350).

NOTE to HOMEOWNERS: If during pumper's basic visual inspection, pumper observes larger repair problem, pumpout should not be performed. Homeowner should contact WC and apply for repair cost-share program should this issue arise.

B). Repair or Installation: Homeowner (HO) submits application for Repair/ Install Cost-share Program

1) Watershed Coordinator (WC) prioritizes application by chosen criteria. If application is accepted, notification to HO of approval and sends maintenance agreement and W-9 to HO
2) HO signs maintenance agreement, W-9 and returns to WC.
3) WC notifies Health Department (HD) of approved application, HD schedules site evaluation with HO.
4) HD visits property and performs a site evaluation, takes before "photos." HD provides HO with site evaluation report that outlines recommendations for repairing system, and list of certified vendors.
5) Homeowner contacts Certified Septic System Installers from list provided, based on the HD's Site Evaluation Report specifications.
    a) If bid is more than $1,500, homeowner must secure a total of 3 written line-item bids, the lowest of which will be the chosen bid.
    b) If bid is less than $1500, homeowners are encouraged, but not required to secure more bids.
6) HO notifies Installer of being chosen, HO sends the following to the HD:
    a) Homeowner's Cost-Share Payment Form
    b) Copy of bid(s)
        - If over $1500, Complete copies of at least 3 bids (quality electronic scan is fine), indicating lowest bid with a star
        - If under $1500, complete copy of the chosen bid.
    c) Check made to HD for 25% of the total amount of (bid amount +$100) for Health Department's usual site evaluation/permit fee (HD will pay installer in full only after work has been completed, and the HD has done final inspection.)

        **NOTE to HO: If there are unanticipated repairs that are found once the system is opened up, and the actual invoice is higher than estimate, the Homeowner will be required to send additional check to HD for the difference of 25% of the final invoice.
7) HD verifies receipt of 7 a, b, and c above.
8) HD deposits HO's check before work begins, reviews homeowner-selected bid to verify that proposed work is what was required,
9) HD notifies Installer and WC that permit is approved (work is approved to begin).
10) Installer contacts homeowner to schedule work. Work is done.
11) HD does final inspection work, takes GPS location, and "after" photos, works with HO to design a Groundwater Protection Plan.
12) When work is completed.
    a) Installer invoices homeowner, supplies as-built drawings to HD.
    b) Homeowner does the following :
        - sends copy of invoice to HD (HD will pay full invoice directly to Installer, after completion of work and final inspection.)
        - if actual invoice is higher than bid, Homeowner sends additional check to HD (written to Health Department) for difference of 25% in invoice
13) HD pays installer directly for full amount.
14) HD then sends OCFC an invoice package including:
    a) Homeowner's Cost-Share Payment Form

b) site evaluation report
c) final inspection report
d) system GPS location, (lat/long)
e) as-built drawings/sketches
f) photo documentation before and after
g) copy of repair permit
h) bid(s) as follows
    - if over $1500, 3 installer bids
      -OR
    - if under $1500, 1 chosen bid
i) Paid installer invoice
j) HD permit/site evaluation fee invoice
k) reimbursement invoice form (supplied by OCFC) to OCFC for 75% of total sum of installer invoice plus $100 HD permit/site evaluation fee

15) OCFC reimburses HD 75% of paid installer invoice.
16) OCFC invoices DOW for re-imbursement of full amount: match (HO 25%)/ and federal amounts (75% of repair).

Target Group: Former participants of Onsite Wastewater (OSWW) workshops will be offered participation in the program as a first priority group. Once those have been contacted, additional applications will be accepted and evaluated as brought forward by the Health Department or contacting us directly. Help for second priority participants will be evaluated based on targeted subwatershed, neighborhood, proximity to waterway, expected impact of repair, and best professional judgment of Health Department and Oldham County Fiscal Court personnel. Systems within target neighborhoods/ subwatersheds (Upper Asher's Run) will receive higher priority, but any household system within Curry's Fork Watershed experiencing wastewater issues may apply for consideration. Households with straight pipes located anywhere in the watershed will receive very high priority.

In the application, Homeowner states that by participating in the repair program, in exchange for cost-share program paying up to 75% of maintenance, repair, or replacement costs (up to $20,000 total or $15,000 cost-share), and $100 inspection/permit fee.
Homeowner agrees to:

- Contact the Health Department to set up a site evaluation
  (Usual site evaluation/permit fee of ($100) is waived/paid by grant.)
- Work with Health Department on site visit to develop a Groundwater Protection Plan (GWPP)
- provide the HD's site evaluation report to installers to get at least two written estimates for work outlined in the site evaluation report.
- **provide payment in advance of work for 25%** of best/lowest chosen installer estimate for maintenance, repair, or replacement costs (paid to HD).
- If the actual maintenance/repair/installation cost differs from the estimate once the system is opened up, provide additional funds to meet the 25% match percentage.
- Sign the homeowner septic system maintenance agreement
- Provide all required documentation requested by Health Department and OCFC's Curry's Fork Watershed Program.
- Hold OCFC and OCHD harmless for any liability.

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JSHEAN@OLDHAMCOUNTYKY.GOV

OLDHAM COUNTY FISCAL COURT
100 WEST JEFFERSON STREET, SUITE 3, LAGRANGE, KENTUCKY 40031
OFFICE 502-222-1476, EXT. 1403 • FAX 502-222-3213
WWW.OLDHAMCOUNTYKY.GOV

May 10, 2016

Curry's Fork Watershed Resident and Septic System Workshop Attendee:

You are receiving this letter because you participated in a septic system workshop in the past, and Oldham County Fiscal Court would like to offer you financial assistance in maintaining or repairing your septic system. We have a new program that applies to your part of the county. Curry's Fork Watershed has been tested as having elevated pathogens levels in the waterways. Human waste from faulty septic systems has been identified as a likely contributor. To help correct this problem, with federal grant funding, we are offering the Curry's Fork Septic System Maintenance and Repair Cost-Share Program, in conjunction with the Oldham County Health Department.

The purpose of the Curry's Fork Septic System Maintenance and Repair Cost-Share Program is to encourage residents to replace straight pipes and maintain and repair septic systems, especially those that have a strong impact on Curry's Fork. *This project is voluntary*. Property owners are solely responsible for maintaining their septic systems. However, if your application is accepted, **the grant will cover 75% of all costs (pumpout, repair, installation, and permit fee) and you, the homeowner, would only pay 25% of the cost.**

Only 20 homeowners that previously attended a workshop are being invited via this letter, and funds are available for up to 10 of those on a **first-come, first-served** basis. Due to our tight grant cycle, we need your **application as soon as possible, but no later than June 15.** All work needs to be completed by June 30, 2016; so the sooner you start, the better.

Please choose one of the next steps of how you would like to proceed.

A. If you don't suspect or know of any problems, but are due for a pumpout, you can choose to submit the enclosed "Septic System Pumpout Cost-Share Program Application" to get reimbursed for 75% of the cost of an inspection and pumpout (recommended every 3-5 years).
B. If you suspect or know of a problem (such as smelling an odor or seeing puddles in your drainfield), you can choose to submit the enclosed "Septic System Repair/Installation Cost-Share Program Application," in which grant funding provides 75% of the costs of the installation or repair of your septic system and the permit fee associated with it.
C. No further action: maintain and repair your system with your own funds, as required by law.

If you have been putting off taking care of your system due to costs, now is the time to act by completing one of the two enclosed applications to pay 75% of your costs. This is a short-term grant-funded program. Because you've already attended a workshop, **you are receiving the first opportunity to participate. You must apply very quickly to take advantage of this opportunity.** Please feel free to contact me with any questions at all: (502)222-1476, ext. 1403 or jshean@OldhamCountyKy.gov.

Sincerely,

Jen Shean
Watershed Coordinator

CURRY'S FORK WATERSHED

Follow Us!
Facebook.com/CurrysForkWatershed

This work is funded in part by a grant from the US Environmental Protection Agency under section 319(h) of the Clean Water Act through the Kentucky Division of Water to the Oldham County Fiscal Court, Grant #10-15.

CURRY'S FORK WATERSHED

Septic System Pumpout Cost-Share Program Application

(Option A: no known or suspected problem)

Owner's Name _____ Occupant's Name (if different) _____

Property Address _____ City, State, Zip Code _____

Owner's Phone No. _____ Owner's E-mail Address _____

Are you aware of any problems with your septic system? If yes, please describe:

_____

_____

Approximate date of last pumpout: _____ Number of people in household: _____

___ All information included in this application is true to the best of my knowledge. I am interested in being reimbursed for 75% of the cost of a septic tank pumpout after one is completed by a licensed pumper. I understand that the Septic System Pumpout Cost-share Program is limited to residences within the Curry's Fork Watershed. I understand that this is one-time-only assistance, and that as a homeowner, it is solely my responsibility to maintain my septic system.

___ I understand that the pumper will perform a basic visual inspection of my septic system, and that the pumpout may not be performed if this inspection indicates a larger problem. If a larger problem is found during the pumpout inspection, I understand that I may apply for the Repair Cost-Share Program at the same assistance rate of 75%.

I agree to follow Best Management Practices for maintaining and caring for my septic system where possible:

- ✓ **I will** have my system inspected if problems arise.
- ✓ **I will** pump out my septic tank every 3-5 years and keep records of maintenance.
- ✓ **I will** keep a map of my septic system and drainfield locations.
- ✓ **I will** stagger my water usage to prevent overloading my system with too much water at once.
- ✓ **I will** keep undiluted household chemicals (bleach, paint, cleaners) out of my system (not in sinks or toilets).
- ✓ **I will** keep feminine hygiene products, cigarettes, medications, paper towels, or other objects out of sinks/toilets.
- ✓ **I will** minimize the use of garbage disposals.
- ✓ **I will** try to choose low-phosphate or phosphate-free laundry and dishwashing detergents.
- ✓ **I will** prevent vehicles or heavy equipment from driving over my septic system or drainfield.
- ✓ **I will** keep new trees or shrubs 100 feet away from my drainfield.
- ✓ **I will** maintain a Groundwater Protection Plan on the property, as required by Kentucky state law.
  (Template/example Groundwater Protection Plan can be provided by Curry's Fork Watershed Project.)

_____ _____

Signature of Applicant Date

Please return completed application ASAP but by June 15, 2016 at the latest:

Mail to: Jen Shean, Oldham County Fiscal Court
100 West Jefferson St. - Suite 3
LaGrange, KY 40031

-OR- **E-mail signed scanned copy to**: jshean@oldhamcountyky.gov

If you have questions, call: (502) 222-1476, ext. 1403

If you qualify for the program, further instructions will be sent.

CURRY'S FORK WATERSHED

Septic System Repair/Installation Cost-Share Program Application

(Option B: known or suspected problem)

Owner's Name _____ Occupant's Name (if different) _____

Property Address _____ City, State, Zip Code _____

Owner's Phone No. _____ Owner's E-mail Address _____

Please describe your current septic system situation (including type of tank and leach field, any known or suspected problems, and location of discharge).

_____

_____

_____

_____

_____

Approximate date of last pumpout: _____ Number of people in household: _____

Approximate distance to nearest creek _____

Annual household income (optional): _ $35,000 or less _ $50,001 - $75,000 _ $35,001 - $50,000 _ $75,001 or more
(only used in case we need a tie-breaker)

(Please check that you understand each item.)

____ All information included in this application is true to the best of my knowledge. I am interested in learning more about the details of the Septic System Repair/Installation Cost-share Program, in which I might be eligible to pay only 25% of the cost of permitting and repairing my septic system, with the other 75% being covered by federal grant funds.

___If accepted into the Program, I am prepared to provide a check to the Health Department for 25% of the permit fee and repair cost, to be deposited before work can begin. I understand that the Health Department will pay the Installer directly for the full amount of permit and repair costs *after* repairs are completed and approved by the Health Department (including the homeowner 25% and the grant 75%). (Detailed instructions provided, if accepted.)

____I understand that the information provided above will be used only to determine my eligibility for the Septic System Repair Cost-share Program. I understand that this Septic System Repair Cost-share Program is limited to residences located within the Curry's Fork Watershed and that this is one-time-only assistance.

____I understand that as a property owner, it is solely my responsibility to maintain my onsite wastewater system.

_____ _____

Signature of Applicant Date

Please return completed application ASAP but by June 15, 2016 at the latest:

Mail to: Jen Shean, Oldham County Fiscal Court
100 West Jefferson St. - Suite 3
LaGrange, KY 40031

-OR- **E-mail signed, scanned copy to**: jshean@oldhamcountyky.gov

If you have questions, call: (502) 222-1476, ext. 1403

If you qualify for the program, further instructions will be sent.

CURRY'S FORK WATERSHED

Questions? Contact Jen Shean,
Curry's Fork Watershed Coordinator
(502) 222-1476, ext. 1403
JShean@oldhamcountyky.gov

Homeowner Pumpout 75% Reimbursement Form

(Return completed copy, with paid invoice receipt, after pumpout is complete)

Septic System Pumpout Cost-Share Program

Name _____ Phone Number_____

Property Address_____

E-mail Address_____

Keep copies of everything (including the bank statement for the cancelled check), for 3 years in case of an audit. A copy machine is available at Engineers Office of Oldham County Fiscal Court.

1. Contact a septic maintenance/pumper(s) of your choice from the enclosed list of certified operators. (The cost us usually between $300-$500, for basic onsite wastewater systems.) If work bid exceeds $1000, contact Jen Shean at (502) 222-1476, ext. 1403.

2. Schedule pumper of your choice to do a routine basic visual inspection and perform a pumpout. Work must be done by June 15, 2016. Ask for a copy of the detailed invoice and basic visual inspection from the septic pumper. **If pumper notes any problems, please halt the pumpout and contact us to get included in the repair/replacement grant program at the same rate.

3. Pay the septic operator directly for the FULL invoice WITH A PERSONAL CHECK ONLY! We cannot reimburse you if you pay with credit card, cash, or another form of payment.
RECORD the CHECK NUMBER BELOW. Get a "paid" invoice receipt from the pumper.

4. Enclose the following in an envelope: (all must be included)
   - **Copy of Homeowner Cost-share Reimbursement Form (this form)**
   - **Complete "Paid" Invoice Receipt and basic visual inspection**
   - **Check Number_____** (**No reimbursement without your check number.)
   - **Invoice Amount (a.) _____ Check Amount (a.) $_____ (should be the same.)**

Please return by mail, scanned e-mail, or in person by June 20, 2016, to be reimbursed 75%:

Mail/Bring to: Jen Shean, Oldham County Fiscal Court,
100 West Jefferson St. – Suite 3
LaGrange, KY 40031

OR E-mail signed scanned copy to: jshean@oldhamcountyky.gov

**Keep it up! As a homeowner with an onsite wastewater system, you may want to start saving money every month in a septic maintenance and repair account. You'll need a pumpout every 3-5 years, and repairs or replacement periodically. (Repairs and replacements can run upwards of $10,000.)
Next time, we can only offer guidance; YOU are solely financially responsible for checking, maintaining, repairing, and replacing your system.
Spread the word about septic maintenance and repair to your neighbors, friends, and family.

Thanks for doing your part to keep clean up Curry's Fork Watershed!

Internal Only: Application # ___A-_____
Date Received _____

Questions? Contact Jen Shean,
Curry's Fork Watershed Coordinator
(502) 222-1476, ext. 1403
JShean@oldhamcountyky.gov

CURRY'S FORK WATERSHED

Homeowner Checklist (To Keep)

Septic Repair/Installation Cost-Share Program

- € **1. Immediately read, sign, copy, and send in the Homeowner Agreement to Jen Shean.**
- € **2. Immediately schedule a site evaluation with the Oldham County Health Department by calling (502) 222-3516 and asking for Charlie or Todd.** Upon completion, the Health Department will give you a Site Evaluation Report outlining recommendations for repairing your system, and a list of certified vendors. (This report lets you know if you do have an issue and helps ensure that the Installer doesn't ask you to repair something that isn't necessary.)
- € **3. Contact Certified Septic System Installers from list provided, and get repair/installation bids based on the Health Department's Site Evaluation Report specifications (a or b).**
  - a). If bid is less than $1,500, you are not required to secure more bids (but encouraged). Usually $300-500.
  - b). If bid is more than $1,500, you must secure at least 3 written line-item bids; the lowest will be chosen.
  - c). If bid is more than $20,000, do b). and contact Jen at (502) 222-1476, ext. 1403.
- € **4. Notify the Installer/bid that you've chosen.**
- € **5. Send/bring the following to the Health Department**, using address on Homeowner Cost-share Payment Form:
  - a). Complete copy of the Homeowner Cost-share Payment Form, including check number.
  - b). A check for the amount of line "d." of the Homeowner Cost-share Payment Form. Your check will be deposited immediately; work cannot begin until the check is deposited. The Health Department will pay the Installer directly for the total amount once work is complete and approved by the Health Department. **NOTE: If there are unanticipated repairs that are found once the system is opened up and the actual invoice is higher than estimate, you will be required to send an additional check to the Health Department for the difference to make up of 25% of the final invoice.
  - *c). If under $1500, copy of the one full chosen bid.* ***-OR.*** *If over $1500, copies of 3 full bids, indicating chosen bid with a star.*
- € **6. The septic installer will contact you to schedule the work.** Once your form, check, and bid(s) are received and approved, the Health Department will notify the Installer that the permit has been granted and work can begin.
- € **7. When work is completed, get a copy of the installer's final invoice to the Health Department by June 15.**

Send COPY of final invoice to:

Charlie Ward, Onsite Sewage
Curry's Fork Septic System Cost-Share Program
Oldham County Health Department
1786 Commerce Parkway
La Grange, KY 40031

NOTE: If invoice is higher than bid amount, send a copy of the invoice and an additional check (written to O.C. Health Department) for 25% difference invoice. (Call Jen at 502-432-6324 for help figuring this out.)

- € **8. The Health Department will schedule a final inspection of the work.** This one-time federal E.P.A. grant program will pay the invoice directly to the septic installer.

**Keep it up! As a homeowner with an onsite wastewater system, you may want to start saving money every month in a septic maintenance and repair account. You'll need a pumpout every 3-5 years, and repairs or replacement periodically. Next time, we can offer advice, but you are solely financially responsible for checking, maintaining, repairing, and replacing your system. Spread the word about septic maintenance and repair to your neighbors.

Thanks for doing your part to keep clean up Curry's Fork Watershed!

CURRY'S FORK WATERSHED

Internal Use:	
Application #	_____
Last Name:	_____
Date Received:	_____

Homeowner Agreement (Return)
Septic System Repair/Installation Cost-Share Program

(Accompanies Repair/Installation Application Confirmation for Suspected or Known Problems)
(Read, Sign, Copy, and Return)

I. Background and Purpose

Extensive water testing in the last decade has revealed high levels of E. coli in portions of the Curry's Fork Watershed, making many streams unsafe for wading, swimming, and fishing. Human waste is a suspected significant contributor to this problem. Because the watershed is largely rural in nature, watershed plans recommended addressing the problem through the repair of failing septic systems and the replacement of straight pipes.

The Curry's Fork Watershed Project is intended to improve water quality in the watershed by educating local residents on proper septic system function, care, and maintenance, and offering financial assistance to homeowners for septic system pumpouts, repairs, and installations.

II. Bids, Installation, and Installer Payment

Upon being approved for the cost-share program, homeowners will read, sign and return this agreement in order to move forward through the program. Participants will be given a list of certified septic installers, Homeowner Checklist, and a Homeowner Cost-share Payment Form to help walk them through the repair/installation process and are welcome to contact the watershed coordinator with any questions. Homeowner will be required to schedule a site evaluation with the Oldham County Health Department. A Health Department Septic representative will visit property provide homeowner with recommendations for repairing system in the form of a Site Evaluation Report.

The homeowner will solicit bids from certified septic installers by providing them with the Site Evaluation Report as the repair specifications. If a bid is more than $1500, homeowner will need to solicit a minimum of three bids (one bid if the bid is lower than $1500). The lowest/best bid will be chosen. If bid is more than $20,000, please contact watershed coordinator.

Once an installer is selected, the homeowner will use the Homeowner Cost-share Payment Form to figure out 25% of the total costs and provide the Oldham County Health Department with a check for 25% of the bid and permit fee to be deposited before the work begins. The federal cost-share program will pay the selected installer in full after the work is complete and has passed Health Department inspection.

If the actual cost of repair/installation differs from the estimate, homeowner may be required to provide additional funds in order to meet the 25% cost-share percentage.

III. Recordkeeping and Use of Information

Curry's Fork Watershed recommends that you keep all documentation pertaining to this program for at least three years after the work is completed on your property.

CURRY'S FORK WATERSHED

Internal Use:
Application # _____
Last Name: _____
Date Received: _____

IV. Septic System Care and Maintenance

Homeowners receiving financial assistance from the program agree to follow Best Management Practices for maintaining and caring for their septic system where possible, including: (check and initial each)

- € _____**I will** have my system inspected if problems arise.
- € _____**I will** pump out my septic tank every 3-5 years and keep records of maintenance.
- € _____**I will** keep a map of my septic system and drainfield locations.
- € _____**I will** stagger my water usage to prevent overloading my system with too much water at once.
- € _____**I will** keep household chemicals (bleach, paint, cleaners) out of my system (not in sinks or toilets).
- € _____**I will** keep feminine hygiene products, cigarettes, medications, paper towels, or other objects out of toilets.
- € _____**I will** eliminate or minimize the use of garbage disposals.
- € _____**I will** choose low-phosphate or phosphate-free laundry and dishwashing detergents.
- € _____**I will** prevent vehicles or heavy equipment from driving over my septic system or drainfield.
- € _____**I will** keep trees or shrubs 100 feet away from my drainfield.

V. Site Access

By accepting financial assistance under this program, homeowner agrees to allow representatives of Curry's Fork Watershed and its partners, including the Oldham County Health Department, on the property for the purposes of septic repair/installation site evaluation visit and post-repair site visit.

I/We agree to the above terms of this maintenance agreement.

_____ _____
Print Name Phone Number

_____
Property Address

_____ _____
Signature of Applicant Date

Please return by mail, scanned e-mail, or in person to office by June 1, 2016:
(A copy machine is available in the office, if needed)

Mail/Bring to: Jen Shean, Oldham County Fiscal Court,
100 West Jefferson St. – Suite 3
LaGrange, KY 40031

OR E-mail signed scanned copy to: jshean@oldhamcountyky.gov

If you have questions, call: Jen Shean, Curry's Fork Watershed Coordinator at (502) 222-1476, ext. 1403

This work was funded in part by a grant from the U.S. Environmental Protection Agency under §319(h) of the Clean Water Act through the Kentucky Division of Water to Oldham County Fiscal Court (Grant #10-15).

CURRY'S FORK WATERSHED

Homeowner Cost-share Payment Form

(Return completed copy after Health Department Site Evaluation and installer bid solicitation.)

Septic System Repair/Installation Cost-Share Program

Name _____ Phone Number _____

Property Address _____

E-mail Address _____

Homeowner Cost-Share Portion Calculation

a. Repair/Installation Winning Bid Amt.		$_____	a.
b. Health Department Permit Fee	+	$ 100	b.
c. Total Repair/Installation Cost	=	$_____	c.
		(multiply c. x 0.25)	
d. Homeowners Cost-Share Portion	=	$_____	d.

Write **check only** to "Oldham County Health Department" for the amount of line d. and write "Curry's Fork Cost-share" in the notes section. Credit Card payment will not be accepted.

I have enclosed: (all must be included)

- **Copy of Homeowner Cost-share Payment Form (this form)**
- **Check** written to "Oldham County Health Department" for Homeowners Cost-Share Portion (d.) to be deposited immediately before work can start.
  - **Check Number**_____ **Check Amount (d.) $**_____
- **Complete copies of bid(s) based on the Health Department's Site Evaluation Report,** with winning bid starred *
  - if winning bid total (a.) is less than $1500, 1 bid enclosed
  - if winning bid total (a.) is at least $1500, 3 bids enclosed

Keep copies of everything (including the bank statement for the cancelled check), for 3 years in case of an audit. A copy machine is available at Engineers Office of Oldham County Fiscal Court.

Send/Bring ASAP to:

Charlie Ward, Onsite Sewage
Curry's Fork Cost-share Program
Oldham County Health Department
1786 Commerce Parkway
La Grange, KY 40031

Internal Only: Application # _____
Date Received _____

Natural Resources and
Environmental Protection Cabinet

HOMEOWNER'S SEPTIC SYSTEM GUIDE AND RECORD KEEPING FOLDER

The purpose of 401 KAR 5:037 and this groundwater protection plan is to prevent groundwater pollution. Understanding how your septic system works and following good operation and maintenance practices are the keys to preventing groundwater pollution.

This folder provides you with that information. By carefully reading it and following the guidelines, you will not only protect groundwater, but also should receive many years of trouble-free service from your system.

FOR YOUR RECORDS

Keeping records will enable you to better protect and maintain your septic system. In case you sell your house, your records will show a prospective buyer that your system has been properly maintained.

What to keep?

1. Maintenance Log: Date, what was done and reason for the maintenance (Example: measure sludge and scum layers, pump the tank).

2. Inspection Log: Date, what you observed upon walking over the septic system (Example: any unpleasant odors, soggy soil, lush green grass over the lateral lines, surfacing wastewater).

3. Site Drawing: Show accurately the layout of the system on your lot. Include exact distances of each portion of the system from at least two (2) fixed reference points (corner of house, garage, large trees, property line markers).

4. Any permits or receipts.

5. Residential Address _____

_____

Septic system type:

_____ Septic tank - drainfield
_____ Septic tank - constructed wetland - drainfield
_____ Septic tank - leaching chambers
_____ Septic tank - low pressure pipe
_____ Septic tank - sewage lagoon - drainfield
_____ Septic tank - gravelless pipe

Sketch System Layout Here

System Inspection Log

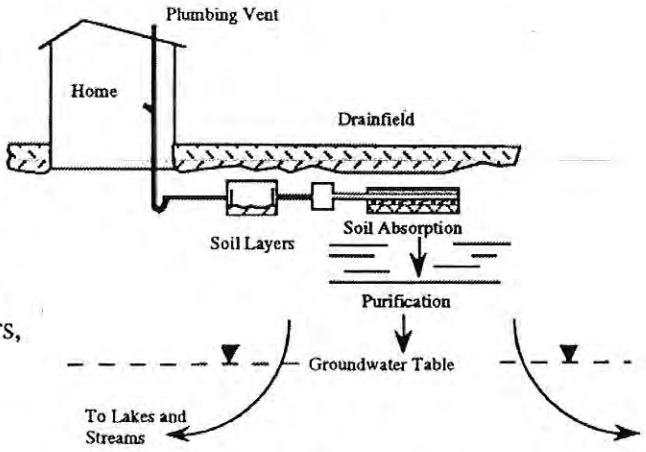
DATE	DESCRIPTION

System Maintenance Log

DATE	DESCRIPTION

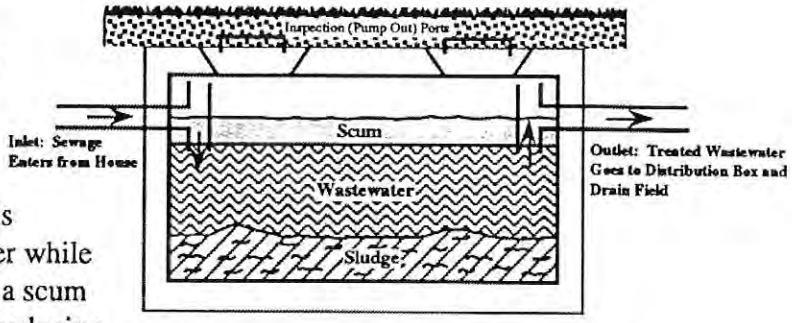
SYSTEM DESCRIPTION

A septic system uses natural processes to treat and dispose of the wastewater in your home. It typically consists of a septic tank and a drainfield (also called a leachfield, lateral field, or subsurface soil absorption beds/trenches). The system accepts both "blackwater" (toilet wastes) and "greywater" (wastes from the kitchen sink, bath tub/showers, and laundry). Water that should not be discharged to the system includes water from foundation or footing drains, roof gutters, and other "clear" water.



Basic System

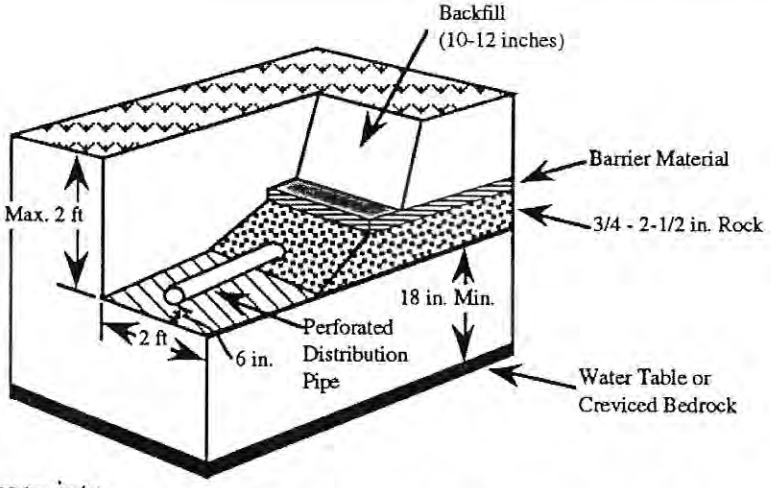
SEPTIC TANK



Septic Tank Cross-Section

The septic tank provides the first step in treatment by separating the solids from the liquids. The wastewater is retained in the tank for 24 hours or more. During this time the heavier solids settle to the bottom to form a sludge layer while the lighter solids float to the top to form a scum layer. Bacteria break down the solids, producing carbon dioxide, hydrogen sulfide, and other gases in the process. These gases are vented through the plumbing vent on your house roof. Since the bacteria reduce only about 40 percent of the sludge and scum volume, the tank must be pumped regularly (approximately every three to five years) to remove the accumulated solids. If the tank fills with sludge and scum, the solids will overflow into the drainfield and quickly clog the soil, resulting in system failure.

THE DRAINFIELD



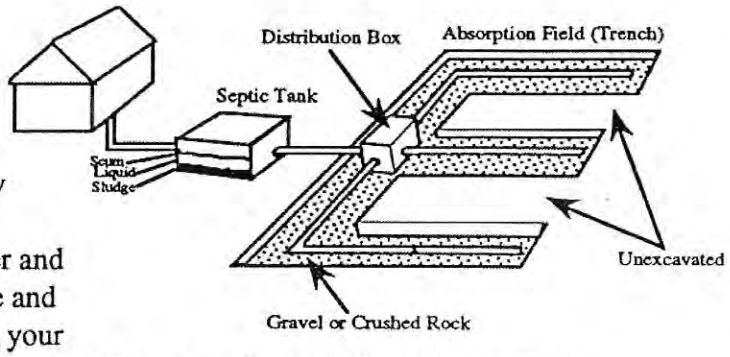
Conventional Rock Drainfield Trench Cross-Section

The drainfield provides the final treatment of the wastewater and disposes of it through groundwater recharge. The typical drainfield is composed of trenches or beds which are shallow, level excavations installed one to one and a half feet above the groundwater table. Each trench contains a perforated distribution pipe through which wastewater drains into the gravel. The water is stored in the gravel until it can seep into unsaturated soil underlying and adjacent to the trench. As the wastewater moves slowly through the gravel and soil, many of the disease-causing bacteria and viruses are filtered out, or adsorbed and held by the soil particles until they die.

Where soils do not permit a drainfield to adequately treat septic tank effluent, an additional or alternative treatment system must be used in conjunction with the drainfield. Alternative systems primarily used in Kentucky are constructed wetlands and sewage lagoons. These alternative systems have their own operation and maintenance guidelines. If you would like information about these guidelines, contact the Groundwater Branch.

TAKING CARE OF YOUR SYSTEM

Your septic system represents a significant investment worth protecting. The old adage "An ounce of prevention is worth a pound of cure" is so true when it comes to the care of your septic system. If you follow the operation and maintenance guidelines given below, your system will function better and last longer, and you will avoid the nightmare and expense of a failed system. Most important, your system will not be polluting groundwater.



Conventional Septic System

DO

- Conserve water to reduce the amount of wastewater that must be treated and disposed.
- Repair any leaking faucets and toilets.
- Discharge only biodegradable wastes into system.
- Divert down spouts and other surface water away from your drainfield.
- Keep your septic tank cover accessible for tank inspections and pumping.
- Have your septic tank pumped regularly and checked for leaks and cracks.
- Call a professional when you have problems.
- Compost your garbage or put it in the trash.

DON'T

- Use a garbage grinder.
- Flush sanitary napkins, tampons, disposable diapers, condoms and other non-biodegradable products into your system.
- Dump solvents, oil, paints, thinners, disinfectants, pesticides or poisons down the drain. These materials can disrupt the treatment process and contaminate the groundwater.
- Dig in your drainfield or build anything over it.
- Plant anything over your drainfield except grass.
- Drive over your drainfield or compact the soil in any way.

If you have a question or need additional information, contact:

Groundwater Branch
Kentucky Division of Water
Natural Resources and Environmental
Protection Cabinet
14 Reilly Road
Frankfort, Kentucky 40601
(502) 564-3410

Environmental Management Branch
Division of Public Health Protection
and Safety
Cabinet for Health Services
275 E. Main Street, HS 2E-B
Frankfort KY 40601
(502)564-4856

Check List
for

Evaluating Your Septic System

1 Find and mark the location of the septic system, You should map this information in the space provided in your Groundwater Protection Plan: "Homeowner's Septic System Guide and Record Keeping Folder."

2 When was the septic tank last pumped?

_____

3 If the tank was last pumped over three years ago, or if you have recently moved into the house and don't know when the tank was last pumped, contact a septic tank pumper. Have him service the tank and check the baffles.

4 Do toilets flush slowly and does water drain slowly from sinks and tubs, or does either "gurgle"?

Yes ☐ No ☐

5 Is there any standing water, soggy ground, or smelly liquid in or near the drainfield?

Yes ☐ No ☐

6 Does the ground slope toward the septic system?

Yes ☐ No ☐

7 Are your septic tank and drainfield less than 100 feet from a lake, stream, or pond?

Yes ☐ No ☐

8 Are water-loving trees such as willows, sycamores, birches, or water maples growing within 10 feet of the septic tank?

Yes ☐ No ☐

9 Are there any areas over the septic tank or drainfield where people have frequently driven their cars or trucks?

Yes ☐ No ☐

10 Have any additions been made to the house since the present septic system was installed?

Yes ☐ No ☐

11 Do you have dripping faucets or a toilet that runs continuously or gradually loses water from its tank?

Yes ☐ No ☐

12 Do you put cigarette butts, coffee grounds, cooking fats, disposable diapers, facial tissue, wet-strength towels, or other non-biodegradeble materials into your septic tank?

Yes ☐ No ☐

If you have answered YES to one or more of questions 4 - 12, the septic system may not be functioning correctly. Call your local health department, or seek other professional help. Should repair of the system be necessary, be sure to engage the services of a professional who has a groundwater protection plan on file. If you have any questions, contact the Groundwater Branch, Division of Water, 14 Reilly Road, Frankfort, KY 40601 (telephone 502/564-3410) or the Environmental Management Branch, Division of Environmental Health and Community Safety, 275 E. Main St., Frankfort, KY 40601 (telephone 502/564-4856).

2016 Onsite Wastewater Cost-Share Program Pilot
Septic Repair/Installation at Forrest Park Dr.

During Construction Photos

2016 Onsite Wastewater Cost-Share Program Pilot
Septic Repair/Installation at Forrest Park Dr.

Post-Construction Photos

DAVID VOEGELE
JUDGE-EXECUTIVE
DVOEGELE@OLDHAMCOUNTYKY.GOV

JOHN BLACK
DEPUTY JUDGE-EXECUTIVE
JBLACK@OLDHAMCOUNTYKY.GOV

BETH STUBER, PE
COUNTY ENGINEER
BSTUBER@OLDHAMCOUNTYKY.GOV

JEN SHEAN
WATERSHED COORDINATOR
JSHEAN@OLDHAMCOUNTYKY.GOV

OLDHAM COUNTY FISCAL COURT
100 WEST JEFFERSON STREET, SUITE 3, LAGRANGE, KENTUCKY 40031
OFFICE 502-222-1476 • FAX 502-222-3213
WWW.OLDHAMCOUNTYKY.GOV

Curry's Fork Watershed Restoration Project
Native Riparian Planting Agreement

(Please print)

Name: David & Karly Dwinells

Mailing Address: 3814 Wiano Drive Crestwood, Ky 40014

Address where plantings will be installed: Same as above

☑ In return for receiving free native riparian plants, I agree to abide by the following terms:

- Prepare planting areas as discussed with Watershed Coordinator.
- Participate in and/or allow volunteers to install plants in riparian area as indicated on planting design schematic.
- Allow signage as appropriate to define planted area or provide educational signage for the public.
- Maintain the native riparian plants on my property to maximize survival. Watering new plantings and removing invasive weeds are the primary maintenance requirements for restored riparian buffers. Ongoing maintenance activities may include mulching, pruning, and replanting bare spots.
- Report to Oldham County Fiscal Court's Watershed Coordinator any issues or concerns with native riparian plant maintenance or survivability.
- Maintain the native riparian plantings for a minimum of three (3) years following installation.
- Agree to an annual inspection by the Watershed Coordinator or send photos and a brief description of plant health to the Watershed Coordinator on annual basis.
- Communicate native riparian plant contract conditions to others involved with property maintenance to ensure native riparian plants are not inadvertently damaged or destroyed.
- Communicate native riparian plant contract conditions to new owners or tenants of household.
- Allow Oldham County Fiscal Court staff access to property to observe or take photographs of the native riparian plantings following installation.
- Contact Oldham County Fiscal Court's Watershed Coordinator if native riparian plants cannot be maintained properly or if property changes ownership and successor does not intend to operate/maintain properly.

☑ I understand the following:

- This project is funded by a Clean Water Act 319(h) Grant from the U.S. Environmental Protection Agency, through the Kentucky Division of Water, to Oldham County Fiscal Court for the purposes of implementing water quality protection and restoration projects in the Curry's Fork watershed.
- I am responsible for operation and maintenance of the native riparian plants at my residence at the address listed above.

Signature: _____ Date 8-17-16

This project is funded in part by a grant from the U.S. Environmental Protection Agency under 319(h) of the Clean Water Act through the KY Division of Water to the Oldham Co. Fiscal Court (Grant #C9994861-10).

B. Plant in middle zone where there's room for mid-story trees

Alnus serrulata

Smooth Alder/ Hazel Alder

Type: Tree

Height: 10.00 to 20.00 feet

Spread: 8.00 to 15.00 feet

Sun: Full sun to part shade

Water: Medium to wet

Culture

Best grown in medium to wet soils in full sun to part shade. Tolerates mucky soils. Winter hardy to UDSA Zones 4-9.

Noteworthy Characteristics

Alnus serrulata, commonly called tag alder, smooth alder or hazel alder, is a multi-stemmed, suckering, thicket-forming, large deciduous shrub or small tree that typically grows to 10-20' tall. It is most often seen in a multi-trunked form with a densely branched crown. It is native to boggy ground along streams/lakes/rivers, wetland margins, springs, spring-fed meadows, ditches and swampy fields from Nova Scotia to Illinois and Missouri south to eastern Texas and northern Florida.

Trunks feature smooth gray bark with inconspicuous lenticels (pores). Flowers are monoecious (separate male and female flowers on the same tree), appearing in separate catkins in March-early April before the leaves emerge. Male catkins (brownish-yellow flowers) are slender, cylindrical and droop in clusters of 2-5 from near the branch tips to 2-4" long. Female catkins (bright red flowers) are upright cylinders (to 1/4" long) located at the twig tips in clusters of 2-5. Female flowers are pollinated by wind. Female catkins develop into 1-inch long fruiting cones (strobiles) to 3/4" long containing winged nutlets (seeds). Fruiting cones mature to dark brown in fall, with persistence into winter. Cones have woody scales and resemble small pine cones. Birds feed on the seed. Broad elliptic to obovate dull green leaves (2-4" long) with serrulate margins are wedge-shaped at the base and pointed at the tip. Insignificant fall color. Root nodules fix nitrogen. This clump-forming species is very useful in wetland restorations.

A. Plant in zone closest to the creek, but not IN the creek

Cornus amomum subsp *oblique/ Cornus obliqua*.

Silky dogwood

Type: Deciduous shrub

Height: 6.00 to 12.00 feet

Spread: 4.00 to 10.00 feet

Sun: Full sun to part shade

Water: Medium to wet

Garden locations

Culture

Grow in average, medium to wet, well-drained soils in full sun to part shade. Prefers moist, organically rich, slightly acidic soils in part shade. Tolerates close to full shade. Benefits from a 2-4" mulch which will help keep roots cool and moist in summer. Branches that touch the ground may root at the nodes. When left alone, this shrub may spread to form thickets.

Noteworthy Characteristics

Cornus amomum subsp *obliqua* is synonymous with and formerly known as *Cornus obliqua*. It is a medium-sized deciduous shrub that is typically found in moist lowland areas, swamp borders, floodplains, shrub wetlands, wet meadows/prairies and along streams and ponds in Eastern and Midwestern North America (New Foundland to Ontario south to Oklahoma, Arkansas and Virginia). In the words of the Royal Horticultural Society, this subspecies primarily differs from species plants by having "a looser habit". Twigs and leaf undersides have silky hairs, hence the common name of silky dogwood. This dogwood typically grows to 6-12' tall with an open-rounded form. Tiny yellowish-white flowers (showy petal-like white bracts are absent) in flat-topped clusters (cymes to 2.5" across) bloom in late spring to early summer. Flowers give way to attractive blue to white berry-like drupes that ripen in late summer (August). Birds are attracted to the fruit. Oval to elliptic, medium green leaves (2-3" long) have conspicuous veins. Attractive fall color is usually absent. Twigs are purplish brown in spring, and have a distinctive brown pith.

C. Plant farthest upslope– somewhat ornamental

Hydrangea arborescens
smooth hydrangea /wild hydrangea

Type: Deciduous shrub

Height: 3.00 to 5.00 feet

Spread: 3.00 to 5.00 feet

Bloom Time: June to September

Bloom Description: White

Sun: Part shade

Water: Medium

Maintenance: Low , **Can be cut back in late winter to encourage flowering.**

Culture

Easily grown in average, medium moisture, well-drained soils in part shade. Tolerates full sun only if grown with consistent moisture. Intolerant of drought, with foliage tending to decline considerably in dry conditions. Plants may die to the ground in harsh winters. Bloom occurs on new wood, so plants may be pruned back close to the ground in late winter to revitalize and to encourage vigorous stem growth and best form. If not pruned back, any weakened and/or damaged stems should be removed in early spring.

Noteworthy Characteristics

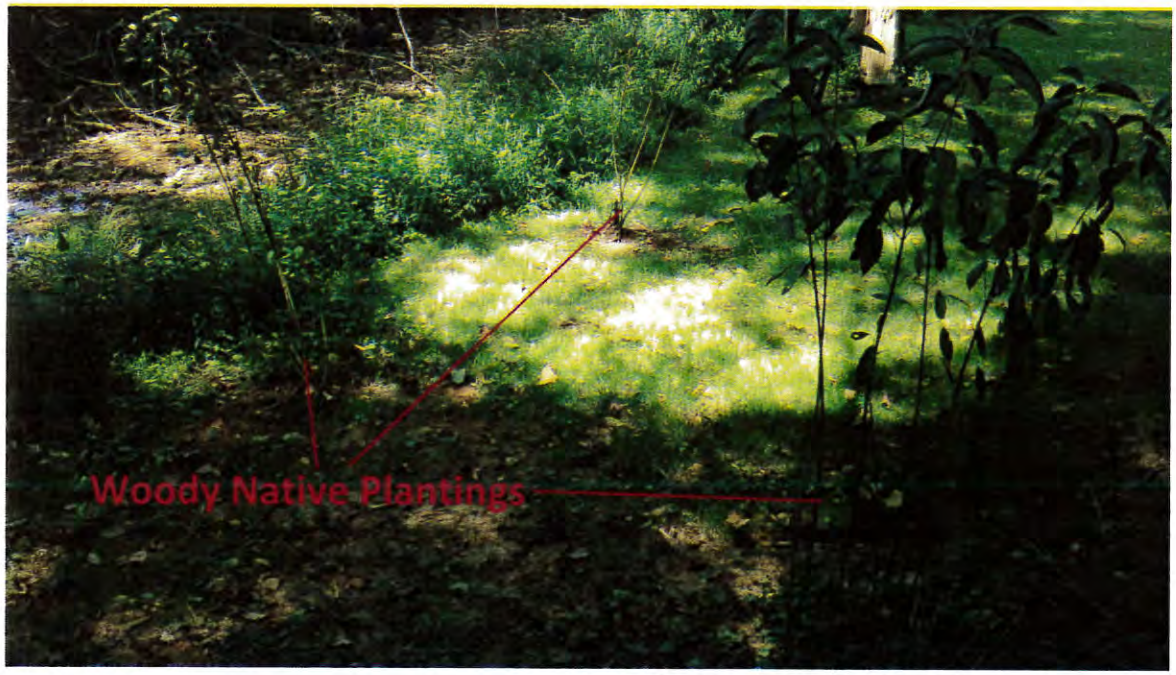
Hydrangea arborescens, commonly known as smooth hydrangea or wild hydrangea, is a loosely and widely branched deciduous shrub that typically grows to 3-6' (less frequently to 10') tall. It is native to moist or rocky wooded slopes, ravines, streambanks and bluff bases from New York to Florida west to Iowa, Missouri, Oklahoma and Louisiana. Gray-brown stems are clad with opposite, broad egg-shaped to rounded, sharply toothed, dark green leaves (2-6" long) with pale green undersides. Leaves turn yellow in fall. Tiny white fertile flowers bloom in May-July in flattened hairy clusters (corymbs to 2-6"across). Scattered continuing flowering may occur throughout summer to September. A few large sterile flowers usually appear at the cluster margins (usually not enough for a quality lacecap effect). Flowers give way to dehiscent seed capsules which ripen in October-November.

Curry's Fork Watershed: Oldham County , Kentucky C9994861-10

2016 Riparian Revegetation Project Wiano Drive, LaGrange
Before and After Comparison Photos (Same General Areas)

Before (2014)

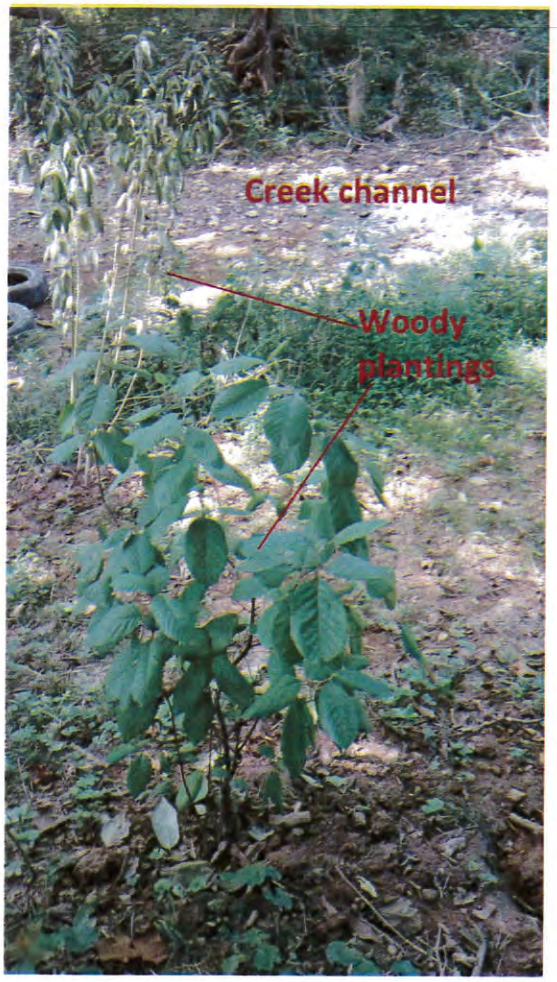
After (2016)



Curry's Fork Watershed: Oldham County , Kentucky C9994861-10

Before (2014)

After (2016)



Curry's Fork Watershed: Oldham County , Kentucky C9994861-10

Before (2014)

After (2016) – Homeowners tried to stabilize bank with wood and rebar in the intermediate years.

Environmental Boot Camp for Agriculture Professionals

August 2015

9:00	Welcome, Introduction and Division of Compliance Assistance Overview– Paulette Akers, DCA
9:15	Ag Water Quality Act – Overview, plan requirements, cost share, KY nutrient management plan University of Kentucky Steve Higgins
10:30	Break
10:45	Solid Waste – Open dumps, common waste issues associated with farm operations. John Rogers and Brian Osterman- KY Division of Waste Management
11:45	Lunch
1:00	Air – Open burning, fugitive dust, odor complaints, RICE- Jarrod Bell- KY Division for Air Quality
2:00	Break
2:15	Water – KNDOPs, CAFO/IPs, NPS- KY Division of Water Brian Crump, KY Division of Water
3:45	Resources, Questions
4:30	End

CERTIFICATE OF COMPLETION

PRESENTED BY

Louisville MSD

TO

Jen Shean

in recognition of your completion of:

Construction Field Day 2015

5.0 Contact Hours

by

Louisville MSD

presented on the 22nd of September, 2015 at

Louisville Water Tower Park, Louisville Kentucky.

MSD

Metropolitan Sewer District

Wes Sydnor

MS4 Program Manager Louisville MSD

Sept. 10, 2015 OLDA Board Meeting

OLDA – Curry's Fork Watershed Project Partnership Opportunities

There is a possibility of obtaining or re-allocating some 319(h) money to incentivize incorporating water quality enhancements in Oldham Reserve to increase infiltration and decrease runoff.

There may be a way to *potentially* use 319 grant money to help with planning/implementation of infrastructure items similar to the following items *if* they are not already in your stormwater permit: enhanced swales, enhanced tree pits (parking lots/streets that funnel water to planted trees, filtering out pollutants underground), a cul-de-sac draining to a rain garden, pervious pavement in parking lots, etc.

The aesthetic look of most of these is no different than conventional; the work is often done via underground engineered solutions.

Using state-of-the-art infrastructure could also incentivize potential businesses, at potentially no additional cost to OLDA.

Furthermore, using some of these items may reduce the load on your *required* stormwater solutions required by your stormwater permit, actually decreasing the costs for which you've already planned.

This may be a few years down the road, but early infrastructure planning would make it easier to incorporate the ideas, and obtaining funding does require lead time.

We wanted to mention to the board that the Curry's Fork Watershed Project is very interested in this partnering opportunity in the future.

OLDHAM COUNTY CONSERVATION DISTRICT

BOARD MEETING AGENDA

June 22, 2016

1. Call to Order — Jon Bednarski
2. Review and Approval of May 25, 2016 Board Meeting Minutes
3. Review and Approval of May Expenditures & Treasurer's Report
4. Review and Approval of May Timesheet
5. Review and Approval of June Mileage Report
6. Review and Approval of 4th Quarter Budget Revision
7. Review and Approval of the Five Year Plan of Work
8. New Business/Old Business/Correspondence
   - ✓ KACD Convention
     - Auxiliary Scholarship Donation
   - ✓ Supervisors Up For Re-election Forms
     - Wes Husband, Kevin Jeffries, Mary Lowry, Clarence Mays
9. Soil and Site Evaluation Reports — Kurt Mason
   - ✓ Saddleview Development
   - ✓ Holiday Inn Express
10. Conservation Update — Kurt Mason
11. Division of Conservation News — Linda Hunter
    - ✓ 10-Minute Supervisor Training – *Resolutions*
12. Public Comment
13. Schedule of Events

June 29 – July 8	Employee Vacation Leave - - Office Closed
July 4	Independence Day - - Office Closed
July 10-12	KACD Convention – Bowling Green
July 16	Oldham County Day
July 27	Board Meeting
July 31- August 2	NACD S.E. Regional Meeting – Cherokee, NC
August 9	Supervisor Petitions Due To County Clerk by 4:00 p.m.
August 31	Board Meeting
August – September	Monarch Butterfly Program
September 5	Labor Day – Office Closed
September 28	Board Meeting

14. Adjournment — Jon Bednarski