

# Curry's Fork Kick off Meeting Minutes

December 4, 2007  
Oldham County Fiscal Court Building

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1. Introductions of Attendees
  - a. Clint Elliot- Church
  - b. Stuart Strickler-OC Board of Education
  - c. Jeff Dean-Engineering Developer
  - d. Tim Curtis- Oldham County Parks and Recreation
  - e. Suhas Kulkarni- Property Owner
  - f. George Wholaver- Farmer
  - g. Mike Coasdaile-University of Louisville
  - h. Beth Stuber- Oldham County Engineer
  - i. Margi Jones- Kentucky DOW
  - j. Adam Connelly- Strand Associates, Inc.
  - k. Paul Maron- Strand Associates, Inc.
  - l. Andrea Rogers- Strand Associates, Inc.
2. Watershed Basics Presentation (Slides attached, each bullet point is a description of a slide)
  - a. Paul Maron delivered presentation to introduce project. (slide 1)
  - b. There have been many parties contributing to the efforts with leadership from Beth Stuber serving as Oldham County Engineer, Paul Maron as Project Management, Adam Connelly focusing on stream data and Andrea Rogers as Stakeholder Group Facilitator.
  - c. The outline of today's presentation will include watershed basics, Curry's Fork 319 grant process and distribution of stakeholder homework.
  - d. Water is constantly moving and changing forms. It falls from the sky as precipitation, drains to the streams which run to the oceans. Then from the oceans and trees it evaporates returning to the clouds. There is a limited supply of water and that is why it is important to be concerned with our water quality.
  - e. A watershed is an area of land that all drains to one point. This is similar to tipping a bowl on its side where the water moves to one point to pour out of the bowl. (slide 5)
  - f. Kentucky has numerous major streams and watersheds. Curry's Fork is located within the Salt River Watershed.
  - g. Curry's Fork Runs from LaGrange to Pee Wee Valley. The grey areas are city limits and white is the Curry's Fork watershed.
  - h. Pre Development conditions versus post development. Pre Development there is natural storage in the system. Post Development storage area is reduced leading to increased runoff carrying pollutants such as sediment, oils and greases.
  - i. Greenways Buffer Streams by providing a filter and space for stream absorb larger storms. Greenways are typically 50 feet from the middle of the stream and are a permanent easement.

- j. What is a watershed based plan? It is a strategy to address watershed needs in the community. (slide 10)
- k. The plan needs to be able to adapt to situations that will rise in the future, so it needs to be a flexible framework.
- l. The watershed based plan needs to reflection of goal and interests of community.
- m. When collecting input from stakeholders, a variety of views will surface. This plan is meant to reflect the views of the community and we need to be mindful and respect the diverse viewpoints others.
- n. There are two major components to a watershed based plan factual or data collection and actions or implementation.
- o. There are nine components to a plan. The focus of the stakeholder group will be on management measures and providing technical and financial assistance. (slide 15)
- p. Grass Roots Community Document that the entire community can embrace. An alternative method would be the state telling community what is the best use of funding. Through the watershed based plan the priorities and preferences of a community are a part of the plan.
- q. Why do we need a watershed based plan?
- r. To determine the current health of a stream physical observation and field measurements were taken to determine where and what limitations are within the Curry's Fork.
- s. As identified by the state, portions of the Curry's Fork Stream are impaired. Further investigate concerning the causes and potential solutions are presented in the plan.
- t. Initial thoughts on reasons why Curry's Fork is impaired include Habitat Alteration, Nutrients such as agricultural runoff, siltation and sediment, pathogens, and dissolved oxygen. (slide 20)
- u. Financial support for this program is provided by a federal 319 grants and match dollars by Oldham County.
- v. For the watershed area, existing data from Kentucky division of water, EPA and Salt River watershed watch are now being compiled.
- w. Project status to date is finishing up year 1. We have collecting field data during contact recreation season from May through Oct. The project is collaborating with University of Louisville to restore South Curry's Fork.
- x. The stream team has been collecting stream samples and setting up auto samplers as shown in the photographs.
- y. University of Louisville has been contracted to study the sediment loading in South Curry's Fork. Through the leveraging of funds for the watershed based plans, other opportunities for funding of projects could present surface. (slide 25)
- z. Who should participate in a Stakeholders Group? Community representatives that represent a distinct section of the Oldham County population.
- aa. The stakeholder group will provide valuable input for the plan. In the end for implementation, the stream team will have the final decision. As a group, you will prioritize community needs and provide community information.

- bb. Conservation Easements are lands donated by property owners. Inside the easement, there will not be any major construction or alter the shape of the land.
  - cc. Homework #1 What do we know is distributed. If you were approached about a conservation easement what how would you react? What are your concerns and general thoughts?
  - dd. For the next meeting, when are the preferred meeting times? Can we identify any other potential stakeholders? (slide 30)
  - ee. Presentation concluded.
3. Comments/Questions
- a. Margi Jones commented by completing a Watershed Based Plan, there are opportunities to leverage funds through other programs. It is a well thought out, document processes that lays out recommended courses of action.
  - b. George Wholaver questioned the conservation easement. What happens if a tree falls into the creek with a conservation easement? Who will be responsible for clearing the creek?
    - i. Paul Maron and Michael Crosdaile answered question. They said that trees falling into the creek are a statement about the floodplain and the health of the stream. Trees really are the result of the creek trying to establish itself back into a more natural state. As far as removing trees from a creek, who is responsible can be negotiated as a part of the easement.
  - c. Suhas expressed concerns about bank erosion on property, exposed roots, and Todds Point Road
  - d. Jeff Dean commented that the landscape and land use of Curry's Fork has gone from very agricultural to minimally agriculture.
  - e. Margi Jones mentioned keeping up with the Floyds Fork Plan for discussions on sewage treatment plants in the watersheds.
  - f. Jeff Dean prefers meeting times are Tuesday and Thursday afternoons.
  - g. Conservation Easements have tax benefits to the property owner.
    - i. Reduce environmental impacts of development and increase water quality.
  - h. Within Oldham County there are primarily 3-10 acre parcels that are not farmed.
  - i. George concerned about liability for the creek if it is on your property.

# Curry's Fork Stakeholder Kickoff

Oldham County Stream Team

## Curry's Fork Stream Team

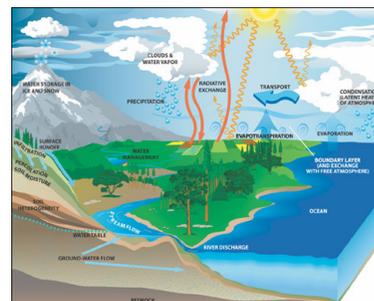
- ❑ Beth Stuber
  - Oldham County Engineer
- ❑ Paul Maron
  - Project Manager – Strand Associates
- ❑ Adam Connelly
  - Data Collection and Analysis – Strand Associates
- ❑ Andrea Rogers
  - Stakeholder Group Facilitator– Strand Associates
- ❑ YOU!

## Game Plan

- ❑ Goals
  - 1. Understanding of the major components of a Watershed Based Plans
  - 2. Stakehold Group Roles and Goals
- ❑ Watershed Basics
- ❑ Curry's Fork 319 Grant
- ❑ Stakeholder Group Homework

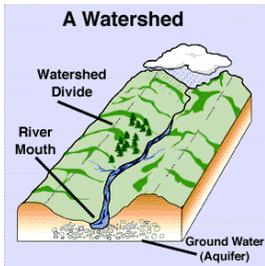


## Water Cycle



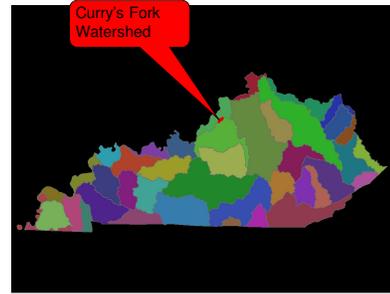
Source: <http://science.hq.nasa.gov/oceans/system/water.html>

## What is a Watershed

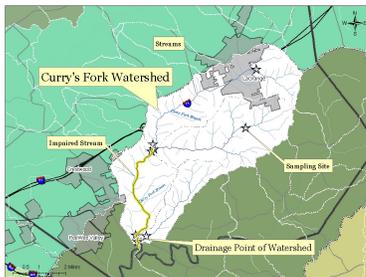


- A watershed is the land where all the water drains to a specific location.
- It includes surface runoff and groundwater flow.

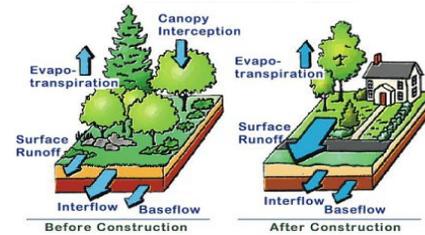
## Kentucky Watersheds



## Curry's Fork Watershed



## Water Balance



Pre Development conditions allow for natural water storage.

Water runoff is dramatically increased (without proper practices and controls).

## Keep it Natural with Greenways

### Greenways:

- ▣ Absorb Runoff
- ▣ Effective Streamside Buffer
- ▣ Uses Floodplain land unsuitable for development
- ▣ Valuable enhancement



## What is a Watershed-based Plan?

A *watershed-based plan* is a **strategy** that provides assessment and management information for a geographically defined watershed, including the analyses, actions, participants, and resources related to developing and implementing the plan.

## What is a Watershed-based Plan?

A watershed-based plan is...

- is a **flexible** framework for managing water quality and quantity in the watershed;
- includes **strategies** to address the most important issues;
- provides a framework for **implementation** of prioritized issues
  - ▣ Responsible entities, partners, schedule, resources needed, funding options.

## What is a Watershed-based Plan?

It should address the following issues:

- What are the important **uses** of the watershed?
- What are the crucial water resource **issues** in the watershed?
- What are your **goals** for the watershed?
- How should **protection** and restoration of the watershed be achieved?

It should reflect the **goals and interests** of the community while protecting the environmental resources of the watershed.

## What is a Watershed-based Plan?

- The watershed means something **different** to each member of the community, and all of these ideas are valid!
- The key to **long term involvement** in a watershed-based plan is to make the plan meaningful to each community member.

## Watershed-based plans include:

- **Water Resource Issues**
  - Guided by local concerns and issues
  - Examines:
    - Water Quality, Water Quantity, Wildlife Resources, Land Use
    - Point and non-point pollution
- **Goals and Decisions**
  - Developed with local input and an eye to the future
  - Identifies
    - responsible parties, implementation plan, milestones, resources needed, funding options, etc.
  - Develops specific Best Management Practices
    - increasing riparian zones
    - suggesting a new zoning ordinance.

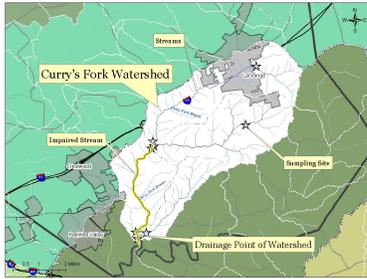
## EPA Requirements for Watershed-based Plans

- a. Identify **causes** and sources of pollution
- b. Estimate **load reductions** expected
- c. Describe **management measures** and target critical areas
- d. Estimate technical and financial **assistance** needed
- e. Develop **education** component
- f. Develop project **schedule**
- g. Describe interim, measurable **milestones**
- h. Identify **indicators** to measure progress
- i. Develop a **monitoring** component

## Why use a Watershed-based Plan?

- As a collaborative strategy to create a comprehensive plan that has community support, it should be a viable plan for the future.
- With a plan for the future, water quality can be protected in the Curry's Fork area as development continues.

## Why Do We Need a WBP on Curry's Fork?



## Stream Health Vitality and Indicators

- Stream Bank Condition
- pH
- Temperature
- Support Aquatic Life
- Conductivity
- Stream Buffer vegetation
- Dissolved Oxygen
- Nutrients



## Why Curry's Fork?

- Segments in Curry's Fork identified on 303(d) list, considered impaired for intended use

Curry's Fork into Elvins Fork From River Mile 0.0 to 4.8	Oldham County Segment Length: 4.8
Impaired Use(s): Aquatic Life (Partial Support), Primary Contact Recreation (No Support)	
Pollutant(s): Sedimentation/Siltation, Pathogens	
Suspected Sources: Highway/Road/Bridge Runoff (Non-Construction Related); Municipal (Unsanitized High Density Areas); Poultry Plant or Other Permitted Small Flow Discharges	

The Oldham County Fiscal Court will be awarded \$970,500 in Federal Section 319(b) Grant funds (FUY2006) to develop and implement a Watershed Based Plan for the Curry's Fork watershed.

Source: Final 2006 Integrated Report to Congress on the Condition of Water Resources in Kentucky, 303(d) List

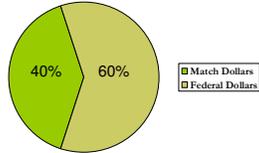
## Reasons for Curry's Fork Impaired Stream Classification

- Habitat Alteration (other than flow)
  - Channelization
- Nutrients
- Siltation/Sedimentation
- Pathogens
- Organic Enrichment/Low Dissolved Oxygen (DO)

## Resources Available for the Project

### Budget

- Total of \$1.6 M
  - \$900,000 Federal Dollars
  - \$700,000 Oldham County Match Dollars



## Existing Data for Oldham County



- Kentucky Division of Water
  - 1981-99
- EPA Storet
- Salt River Watershed Watch
  - 2002-2004

## In the Works

### Out in the Field

- Sampling Sites Identified
- Field Data Collected and Analyzed
- Year 1 Water Quality Grab Sampling Complete
- Year 1 Biological Sampling Complete
- Year 1 Sediment Sampling in Progress
- Collaborating with University of Louisville

## In the Works



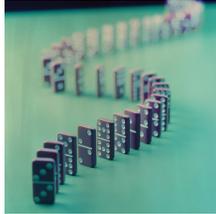
DATE	TIME	LOCATION	DEPTH	WIND	TEMP	COND	TURB	DO	PH	ORP	CHLOR	AMMONIA	NITRATE	NITRITE	PHOSPHATE	SILICA	CHLOROPHYLL	COLOUR	SS	SEDIMENT	OTHER
05/21/04	08:30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

FIELD WATER COLLECTIONS: make 11 hourly samplings for each of 44 days of release  
 1000 mg/L nitrate for 10 days  
 1000 mg/L nitrite for 10 days  
 1000 mg/L ammonia for 10 days  
 1000 mg/L phosphate for 10 days  
 1000 mg/L silica for 10 days  
 1000 mg/L chlorophyll for 10 days  
 1000 mg/L colour for 10 days  
 1000 mg/L SS for 10 days  
 1000 mg/L sediment for 10 days  
 1000 mg/L other for 10 days

Sample Collected by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Sample Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

## South Curry's Fork Restoration

- Ripple Effect
  - Due to funds being allocated for the WBP, window for restoration project
  - Focus on reducing **Sediment Loading**
  - Encouraged by Oldham County Board of Education



## Who Should be Involved?

Community Representatives v watershed...

- Local Government
- Concerned Citizens
- Environmental Groups
- Farmers/Local Land Owners
- Local Businesses
- Planning Agencies
- State and Federal Water and N

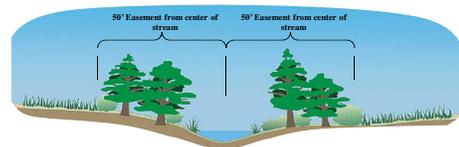


## Stakeholder Group Authority

- What role does this group plan in the WBP?
  - Stakeholder Group will provide valuable input for the Plan
- Distribution of Power
  - Stakeholder Group will provide local knowledge and Stream Team will evaluate for implementation of Projects
- Driving Force
  - Channel Energy
  - Focus Resources
  - Community Priorities

## Conservation Easement Summary

- Buffer strips along stream bank reduces the impacts of stormwater runoff
- Easements:
  - included in development plans- Low Impact Development (LID)
  - Donated by property owner



## What Do We Know?

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- ▣ Basic questions about what's going in the watershed
  
- ▣ You are our eyes and ears in the community!
  - And eventually our voices!

## Next Steps

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- ▣ Set regular meeting times
  
- ▣ Identify potential new stakeholders to join team
  
- ▣ Begin to identify issues in and goals for watershed

