

# Curry's Fork Meeting Minutes

July 24, 2008

Oldham County Fiscal Court Building

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## Goals of the Meeting:

### a. Gather Stakeholder input on Chapter 1 and 2 Drafts

#### 1. Introductions

Presenter/ Project Manager  
Oldham County Engineer  
Stakeholder Group Coordinator

Paul Maron  
Beth Stuber  
Andrea Rogers

#### 2. Presentation

##### a. Chapter One Introduction

Slide

1. Title Slide
2. Introductions of Facilitators
3. Overview of Chapter 1 and 2. The bulk of the material is located in chapter 2.
4. 1.01 Watershed Identification The figure provides a perspective of where Curry's Fork is located on a state and county scale.
5. 1.02 Goals
  - i. Measureable outcomes for the Watershed Based Plan
    1. Margi Jones suggested to base goals on the 9 watershed components with more specific goals outlined.
6. 1.03 Partners and Stakeholders
  - i. First meeting was conducted in December of 2007. The stakeholders will be added as more people participate in the group.
  - ii. Include a watershed for dummies and glossary in chapter 1.
7. 2.01 Physical and Natural Features
  - i. Chapter 2 characterizes our watershed into 8 subsections.
8. A. Watershed Boundaries
  - i. Curry's Fork encompasses a total of 27 square miles.
9. B. Hydrology
  - i. Stream orders classify streams by magnitude.
  - ii. The overarching stream network is described in the figure shown. Curry's fork drains into Floyds Fork which in turn drains into the Salt River and the Salt River discharges in to the Ohio River.
10. C. Flood Plains
  - i. The 100 year flood plain is outlined in the figure. Every year there is a 1 % chance of a hundred year flood. The highlighted areas are the 100-year flood plain for Curry's Fork.
11. E. Topology

- i. In general, Oldham County has gentle rolling terrain which rarely exceeds 20% grade. The significance in terms of water quality is how quickly the water and rain move throughout the watershed. If the terrain was extremely steep the water would move quickly.
- 12. F. Soil Classification
  - i. Curry's Fork consist of mainly silty loam
- 13. F. Soil Hydrologic Soil Group
  - i. Silty Loam soils are generally in the soil group of B
  - ii. Group A is sandy soils with high infiltration rates, group B is moderate infiltration rates
- 14. Soil Infiltration Rates
  - i. To put the infiltration rates into perspective, a chart was created to compare a 2 month storm to group b infiltration rates. The chart does not include land use. For a 2 month storm, 1.06 inches of rain falls. With an infiltration rate of 0.15 in/hr 0.77 inches will become runoff.
- 15. G. Climate and Precipitation
  - i. Oldham County has a moderate amount of rainfall. The total rainfall is 45 inches/year. The precipitation amount is moderate, not desert and not rainfall somewhere in the middle.
- 16. G. Climate and Temperature
  - i. Temperature ranges impact the selection of flora or plants for our projects.
- 17. H. Habitat
  - i. Identifying wetlands requires trained scientific investigation. They provide a natural buffer for our streams and need to be protected. The National Wetland Inventory delineates wetlands.
- 18. H. Fish and Wildlife
  - i. Curry's Fork supports a wide array of wildlife.
    - 1. We are checking with the KY Nature Conservancy and nature preserves on endangered and threatened species in the watershed. Brainerd Palmer-Hall at Nature Preserves Commission has more information.
- 19. 2.02 Land Use and Population
  - i. In chapter 2 we will walk through the typical land use in the watershed.
- 20. A. Land Use and Land Cover
  - i. In 2002 the top 2 land cover classifications were Deciduous Forest, Pasture Land and Developed, Open Space provided by the US Geological Survey
- 21. B. Land Use Management Practices
  - i. The Phase 2 Stormwater Permit requires ordinances to be developed. The WBP will collaborate with this effort and document existing ordinances.
- 22. B. Zoning
  - i. 63% of Curry's Fork is zoned residential.

- ii. The Conservation Zone is surrounding the streams with a maximum of 1 house per acre.
- 23. B. Population
  - i. Oldham County has experienced growth and there is the potential for more.
- 24. C. Demographics
  - i. Oldham County is well above national averages on education, income and owner occupied houses. The renter versus home owner ratio is important when education and outreach programs are implemented. People are more likely to make changes to the properties in which they own versus rental properties.
- 25. 2.03 Waterbody and Watershed Conditions
  - i. Paul Maron reviewed the watershed conditions.
- 26. A. Water Quality Standards
  - i. Every stream has a designated use. Streams are evaluated to see if the stream is meeting the designated use. Water quality data is collected to support the evaluation.
- 27. B. Water Quality Reports
  - i. The water quality data is compiled in different reports. Curry's Fork was listed in the 2004 and 2002 303d List as a 1<sup>st</sup> priority stream.
- 28. C. Watershed Related Reports
  - i. Watershed Related Reports in the region describe efforts in the watershed. The future planning efforts for the region are included in the facilities reports, adjacent WBP and volunteer monitoring reports.
- 29. 2.04 Pollution Sources
  - i. There are two types of pollution sources - point and non-point. Point sources are at a specific location and is easier to characterize the waste at that point. An example of point is the pipe discharge of a wastewater treatment plant. Non-point is more difficult to quantify and is at a non-specific location. Rain runoff is an example of non-point.
- 30. A. Point Sources
  - i. See the map for the locations of the point sources in our watershed.
- 31. Wastewater Discharge Permits
  - i. The LaGrange WTP is the largest permitted discharge point. There is one package treatment plant that the permit was not located. We are verifying with Oldham County Sanitation Department about the permits and when the plants were installed. The facilities could be old.
- 32. 2.05 Water Body Monitoring Data
  - i. EPA Storet information has been compiled along with the volunteer watershed data collection. See map for sampling locations.
- 33. B. Biological Data

- i. Index
    - 1. Sedimentation Loads
    - 2. Additional information is being collected
- 34.C. Geomorphologic Data
  - i. University of Louisville has information on geomorphologic data.
- 35. In Summary
  - i. Draft versions of Chapter 1 and 2
  - ii. Working on Goals
  - iii. Compiling Existing Data
  - iv. Collecting Water Quality Data
  - v. **Complete feedback forms for Chapter 1 and 2**
- 3. Feedback
  - i. Evaluation
- 4. Next Meeting Nov 2008
  - a. Draft Education and Outreach Materials

Watershed Characterization  
Curry's Fork  
Stakeholder Meeting  
July 24, 2008 – 4:00 p.m.

Oldham County Stream Team

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**Curry's Fork Stream Team**

- Beth Stuber
  - Oldham County Engineer
- Paul Maron
  - Project Manager – Strand Associates
- Andrea Rogers
  - Stakeholder Group Facilitator– Strand Associates
- YOU!

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Chapter 1 Introduction &  
Chapter 2 Characterizing Our Watershed

- 1.01 Watershed Identification
- 1.02 Goals
- 1.03 Partners

- 2.01 Physical and Natural Features
- 2.02 Land Use and Population
- 2.03 Waterbody and Watershed Conditions
- 2.04 Pollution Sources
- 2.05 Water Body Monitoring Data



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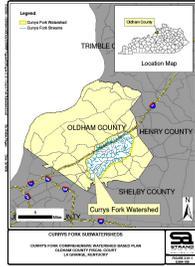
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## 1.01 Watershed Identification

- Oldham County Fiscal Court Partnered with the Kentucky Division of Water to Develop a roadmap for non point source pollution strategies for reduction



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## 1.02 Goals

- Goals
  - 1. Water Quality Data Collection
  - 2. Education and Outreach
  - 3. Protection of High Integrity Streams
  - 4. Identify Areas of Concern and Target BMPs
  - 5. Conservation Easements
- Stakeholder Input!

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## 1.03 Partners and Stakeholders

- Established 2007
- Oldham County Engineer Beth Stuber is the group facilitator



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## 2.01 Physical and Natural Features

### Define Currys Fork...

- A. Watershed
- B. Hydrology
- C. Floodplain
- D. Topology
- E. Soils
- F. Climate and Precipitation
- G. Habitat
- H. Fish and Wildlife



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## A. Watershed Boundaries

### USGS HUC-14

- The United States is divided and subdivided into smaller hydrologic units based on watersheds. The number of digits the represents the level of detail.



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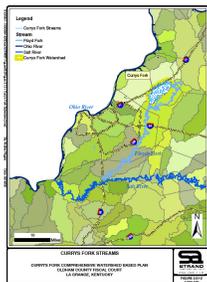
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## B. Hydrology

### Stream Order

- Currys Fork Streams are in the stream order of 1 through 4
- Currys Fork (4) drains into
  - Floyds Fork (6) discharges into the
    - Salt River (6) discharges into the
      - Ohio River (8)
- There are approximately 1.4 miles of waterways in Currys Fork Watershed



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### C. Flood Plains

- Urban Development often increases flooding
- Federal Emergency Management Agency delineates 100 year flood zones



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### D. Topography

- Gentle Rolling Terrain
- Rarely exceeds 20% grade
- Lowest Point 420 ft
- Highest Point 920 ft



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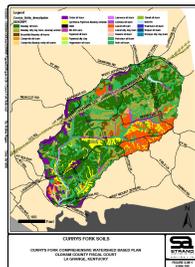
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### E. Soils Classification

- Soils consist of a mainly silty loam



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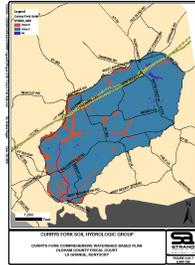
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## E. Soils Hydrologic Soil Group

- Hydrologic Soil Group of primarily B
- Group B indicates a shallow loess and sandy loam soil types with a moderate infiltration rate.
- The potential for runoff is moderate.



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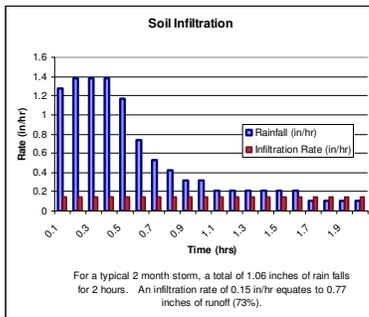
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## E. Soil Infiltration Rate



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## F. Climate and Precipitation

- Oldham County receives approximately 45 in/year precipitation.

Month	Inch
Jan	3.08
Feb	2.96
Mar	3.96
Apr	3.52
May	5.00
Jun	4.63
Jul	4.73
Aug	4.05
Sep	2.58
Oct	2.86
Nov	3.55
Dec	3.77
Annual	44.69

Table 2.01-2 Annual Precipitation (Lagrange Station)

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## F. Climate and Precipitation

- January coldest month ranging from 20-40 degrees
- July warmest temperatures ranging from 62 to 88 degrees

Month	Max °F	Mean °F	Min °F
Jan	40.2	29.8	19.3
Feb	45.9	33.8	21.6
Mar	56.2	43	29.8
Apr	66.9	52.4	37.9
May	76.4	62.5	48.5
Jun	84.3	70.8	57.3
Jul	88.1	75.1	62
Aug	86.6	73.3	60
Sep	80.3	66.2	52
Oct	69	54.4	39.7
Nov	56.2	44.1	32
Dec	44.8	34.3	23.8
Annual	66.2	53.3	40.3

Table 2.01-3 Temperature (Shelbyville Weather Station)

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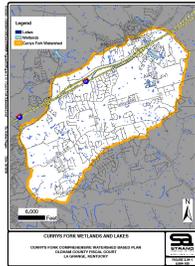
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## G. Habitat

- Aquatic Habitat
  - Defined by National Wetland Inventory for US Fish and Wildlife
  - Small areas, scattered throughout watershed



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## H. Fish and Wildlife

- Excluding Lagrange, Currys Fork is rural
- Landscape creates a supportive environment for a diverse assortment of wildlife
- Endangered and/or threatened species
- Fish advisories

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## 2.02 Land Use and Population

- A. Land Use and Land Cover
- B. Land Use Management Practices
- C. Demographics



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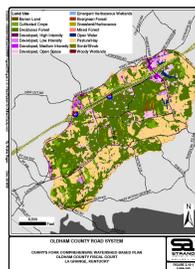
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## A. Land Use and Land Cover

- Top 3 Land Use Classifications are
  - Deciduous Forest,
  - Pasture Hay
  - Developed, Open Space
- Top 3 total over 80% of the watershed.



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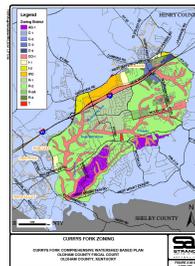
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## B. Land Use Management Practices

- Water, Waste Water and Storm Ordinances
- Zoning



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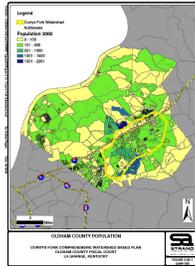
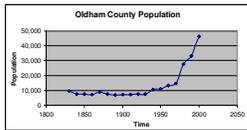
## Currys Fork Zoning Breakdown

- Residential Zoning has the Highest Percentage of land acreage in Currys Fork

Zone	Acres	Percentage	Zone	Acres	Percentage
<b>Agriculture</b>			<b>Industrial</b>		
AG-1	1,206	7%	I-1	332	2%
IPD (Industrial Park District)	498	3%	I-2	291	2%
	1,704	9%	IPD (Industrial Park District)	179	1%
				803	4%
<b>Commercial</b>			<b>Residential</b>		
C-1	85	0%	R-1	2,217	12%
C-2	0	0%	R-2	5,635	48%
C-3	181	1%	R-2A	446	2%
C-4	149	1%	R-4	188	1%
	415	2%		11,486	65%
<b>Special</b>			<b>Travel</b>		
CO-1	3,682	20%	T	37	0%
	3,682	20%		37	0%

Table 2.02-2 Oldham County Zoning

## B. Population and Demographics



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## C. Demographics

- Oldham County is the wealthiest county in Kentucky and the 48<sup>th</sup> wealthiest county in the US.
- Typically ranks above national average

	Category	Oldham	Oldham Percent	US	Compared to US
<b>Population</b>	Population	46,178			
<b>Education</b>	Population over 25	30,366			
	Bachelors Degree or Higher	9,299	30.6%	24.4%	Above
<b>Housing</b>	Median Household Income 1999 (dollars)	\$70,495		\$50,046	Above
	Individuals below Poverty	1,717	4.1%	12.4%	Lower
	Total Housing Units	15,541			
	Owner-occupied housing units	12,913	86.9%	80.4%	Above
	Renter-occupied housing units	1,943	13.1%	33.8%	Above
	House Median Value	\$158,600		\$119,600	Above

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## 2.03 Waterbody and Watershed Conditions

- A. Water Quality Standards
- B. Water Quality Reports
- C. Watershed Related Reports



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## A. Water Quality Standards

- Water Quality Data determines if Designated Uses are being supported.

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## B. Water Quality Reports

- 303d List
  - 2004 Currys Fork 1<sup>st</sup> Priority Stream
  - 2002 Currys Fork 1<sup>st</sup> Priority Stream
  - 1998 Currys Fork not identified as impaired
- Integrated 303d and 305b Reports
  - Currys Fork identified as impaired
- Biannual 305 State Water Quality Report
  - Currys Fork from 0 to 4.8 impaired
  - UT to North Currys Fork 0.1 mile impaired



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## C. Watershed Related Reports

- Facilities Plan Oldham County Sewer District, 2007
- Lagrange Facilities Report
- Floyds Fork Action Plan
  - Currys Fork is smaller subwatershed inside of the larger Floyds Fork Watershed
- Currys Fork WBP
- Darby Creek WBP
  - Adjacent WBP within Oldham County
- Floyds Fork WBP
  - The watershed at large is undergoing a plan.
- Other Sources (DOW, Watershed Watch etc.)

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## 2.04 Pollution Sources

- A. Point
  - Specific Location
  - Easy to Characterize Waste
- B. Non Point
  - Non Specific Location
  - Difficult to Quantify



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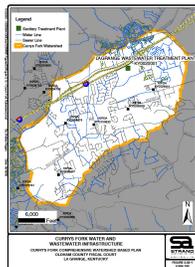
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## 2.04 Pollution Sources

- Point Sources
  - La Grange Wastewater Treatment Plant (0.775 MGD)
  - 5 Package Treatment Plants
- Non Point Sources
  - Poorly Functioning Septic Tanks
  - Chemical Runoff
  - Human and Pet Runoff



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## Wastewater Discharge Permits

KPDES	Name	Capacity (MGD)
KY0020001	LaGrange Wastewater Treatment Plant	0.775
KY0029441	Green Valley Apts	0.030
KY0039870	Lakewood Valley Subd Stp	0.100
KY0100633		
KY0054674	Lockwood Estates Subd Stp	0.045
KY0060577	County Village Stp	0.060

**Table 2.02-2 Wastewater Discharge Permits**

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## 2.05 Water Body Monitoring Data

- EPA Storet
  - Collected between 1999-2004
  - Fecal issues on 15 out of 30 samples
- Watershed Watch
  - Establish baseline data



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## B. Biological Data

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## C. Geomorphologic Data

- University of Louisville

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## In Summary

- Chapter 1 50% Draft Complete
- Chapter 2 30% Draft Complete
- Identified Watershed Based Plan Goals
- Existing Data demonstrates Currys Fork Watershed is threatened by sediment and bacteria impairments
- Collecting Water Quality Data to identify areas of concern

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## Questions/ Comments

- Thank you for your Input!
- Please complete Feedback Form for Chapter 1 and 2



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