

# Mulberry River Status of Water Quality

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# Mulberry River

- 1973 AA Designation
- 1987 AA revised to ERW
- 1992 National Wild and Scenic River

## 2500 WATERSHED AND SOIL MANAGEMENT

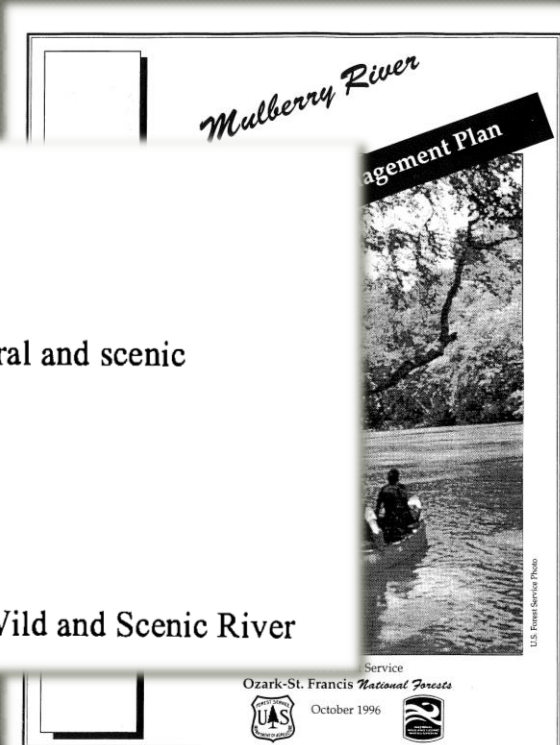
### WATER QUALITY

The Mulberry River is designated as extraordinary resource water, and natural and scenic waterway by the state of Arkansas. Water quality on the river is good.

Existing Condition

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Mulberry Wild and Scenic River



# Mulberry River

- 2008 Segment 009 impaired for pH
- 2009 TMDL

**Total Maximum Daily Load (TMDL)  
For pH  
Mulberry River, Arkansas  
(HUC 11110201-009)**



Prepared by  
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5301 Northshore Drive, North Little Rock, AR 72118

August 2009

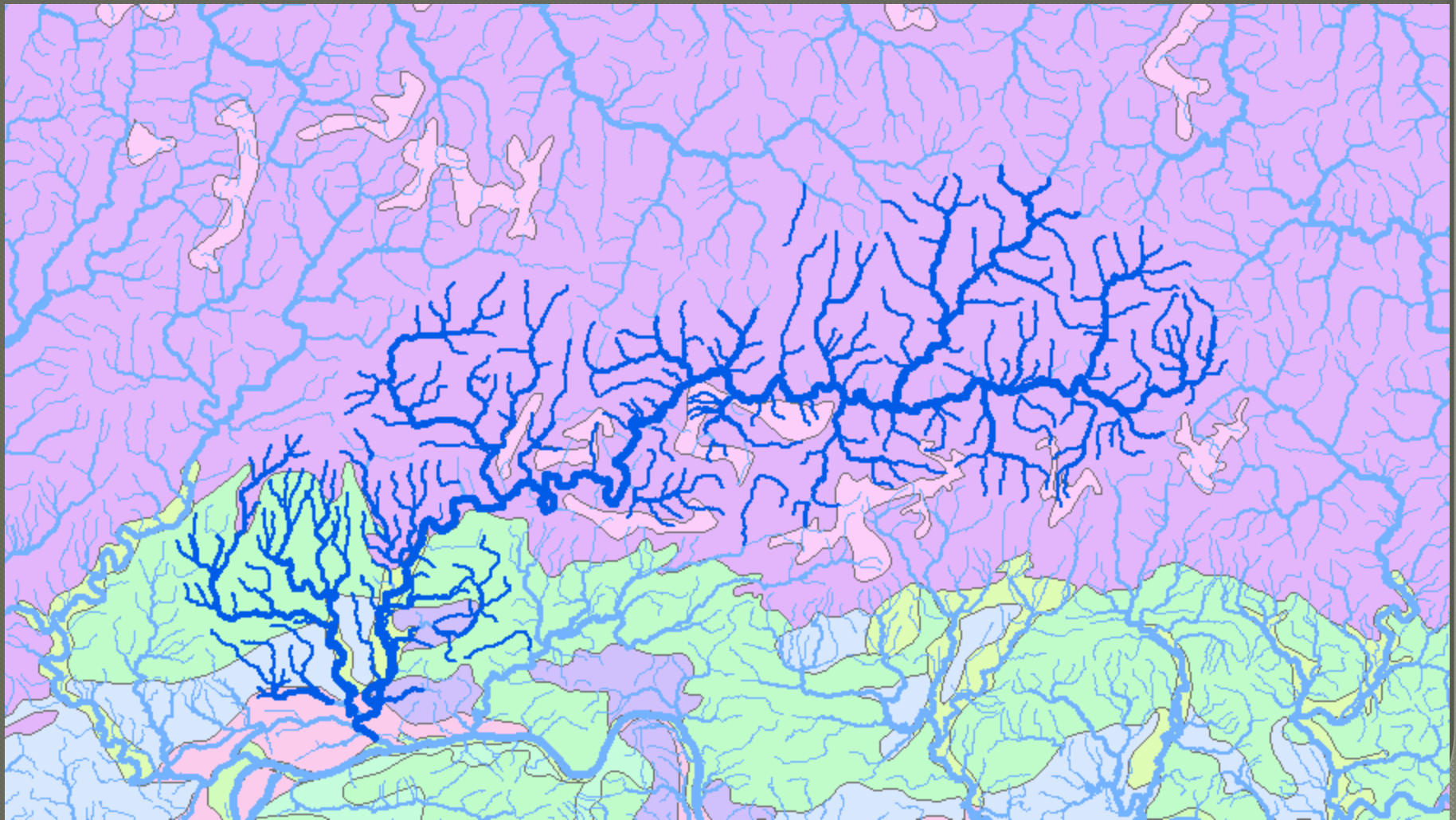
Draft Mulberry River pH TMDL



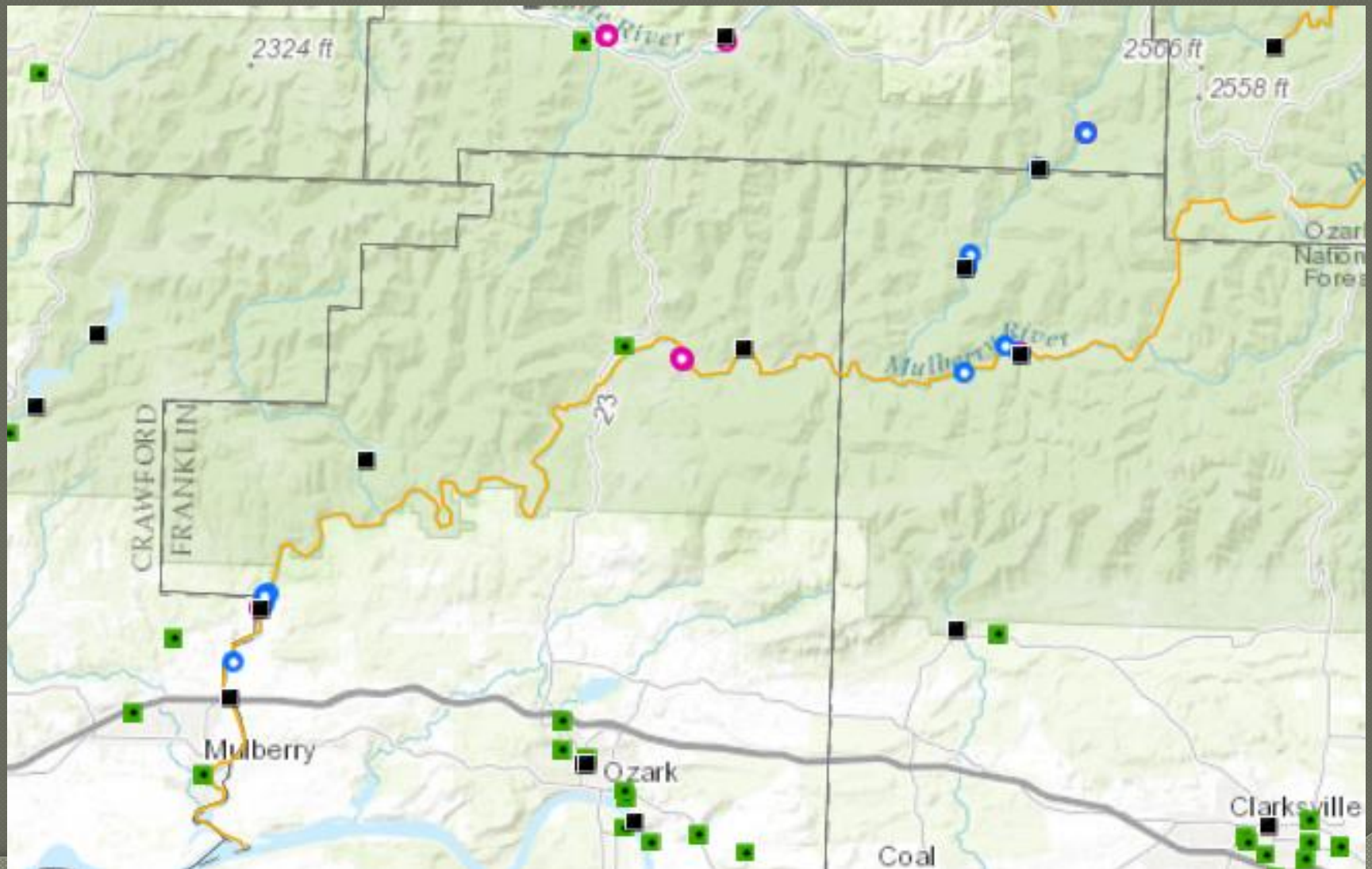
# Mulberry River Watershed

## Soils

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# AquaView v1.0





# Land-use Land-cover

○ 1986

○ 1992

○ 1999

○ 2006

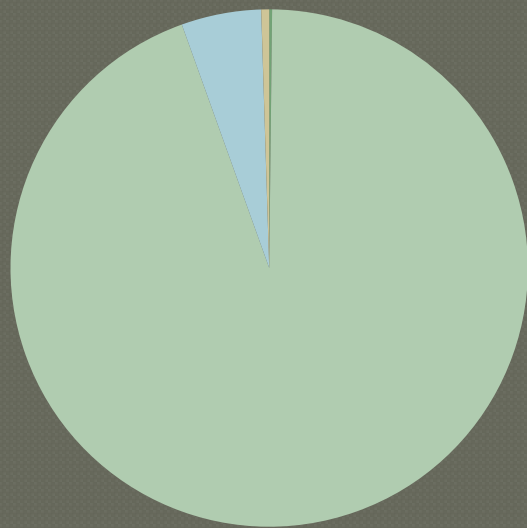
○ Categories

- Forest
- Agriculture and pasture
- Urban



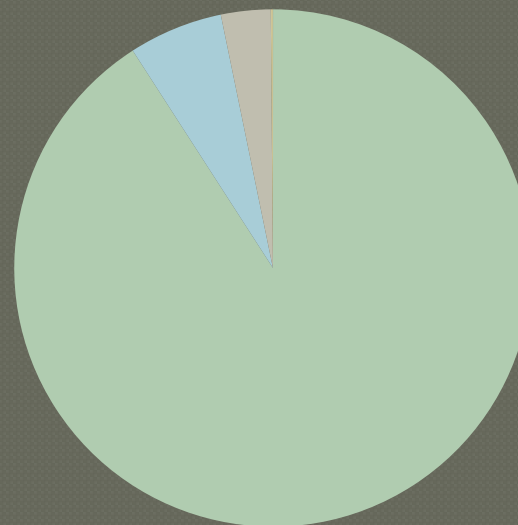
# Mulberry River

Boston Mountains



**1992 LULC**

- AGRICULTURE
- FOREST
- PASTURE
- URBAN
- OTHER

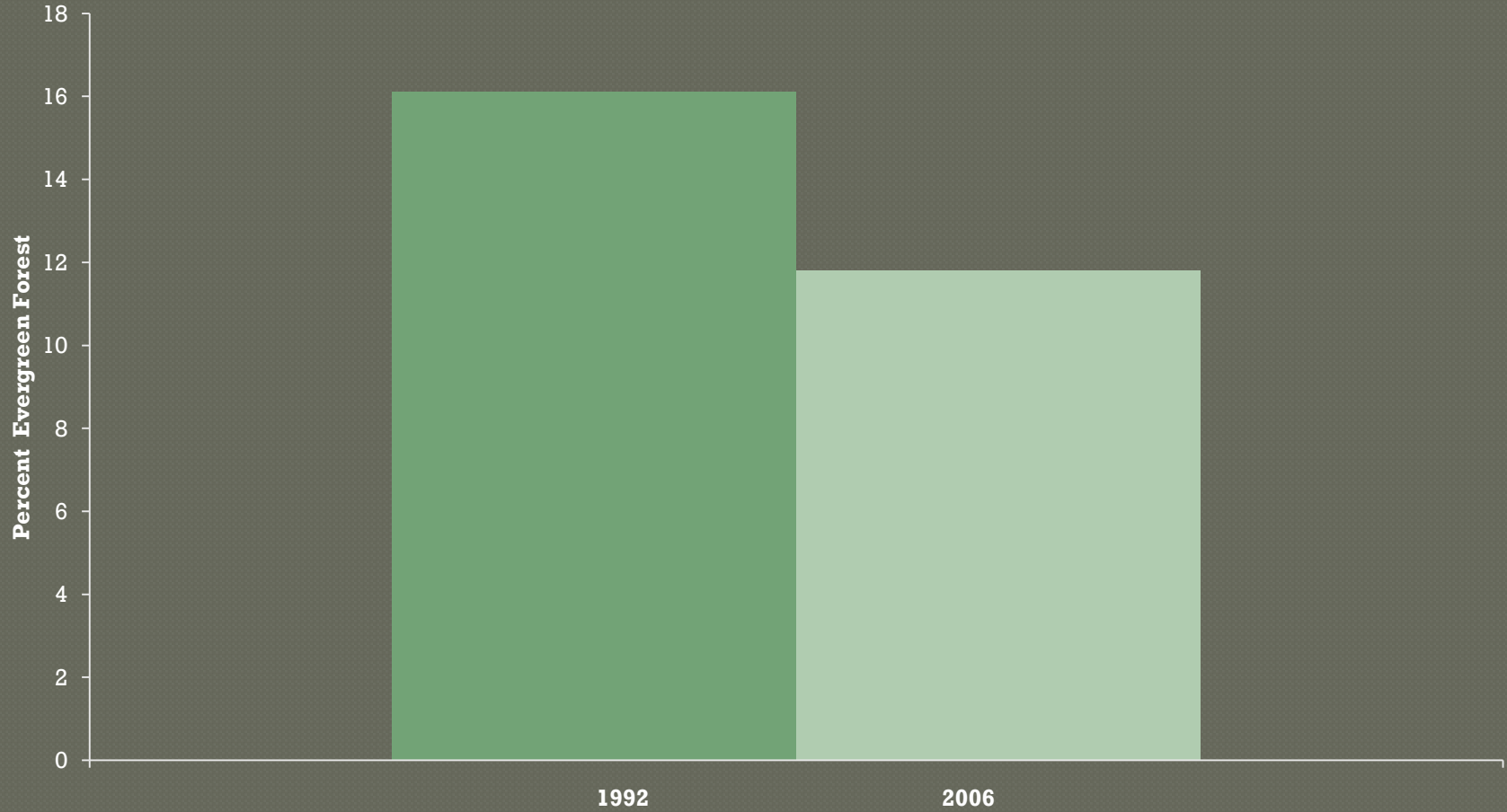


**2006 LULC**

- AGRICULTURE
- FOREST
- PASTURE
- URBAN
- OTHER

# Watershed Forest Composition

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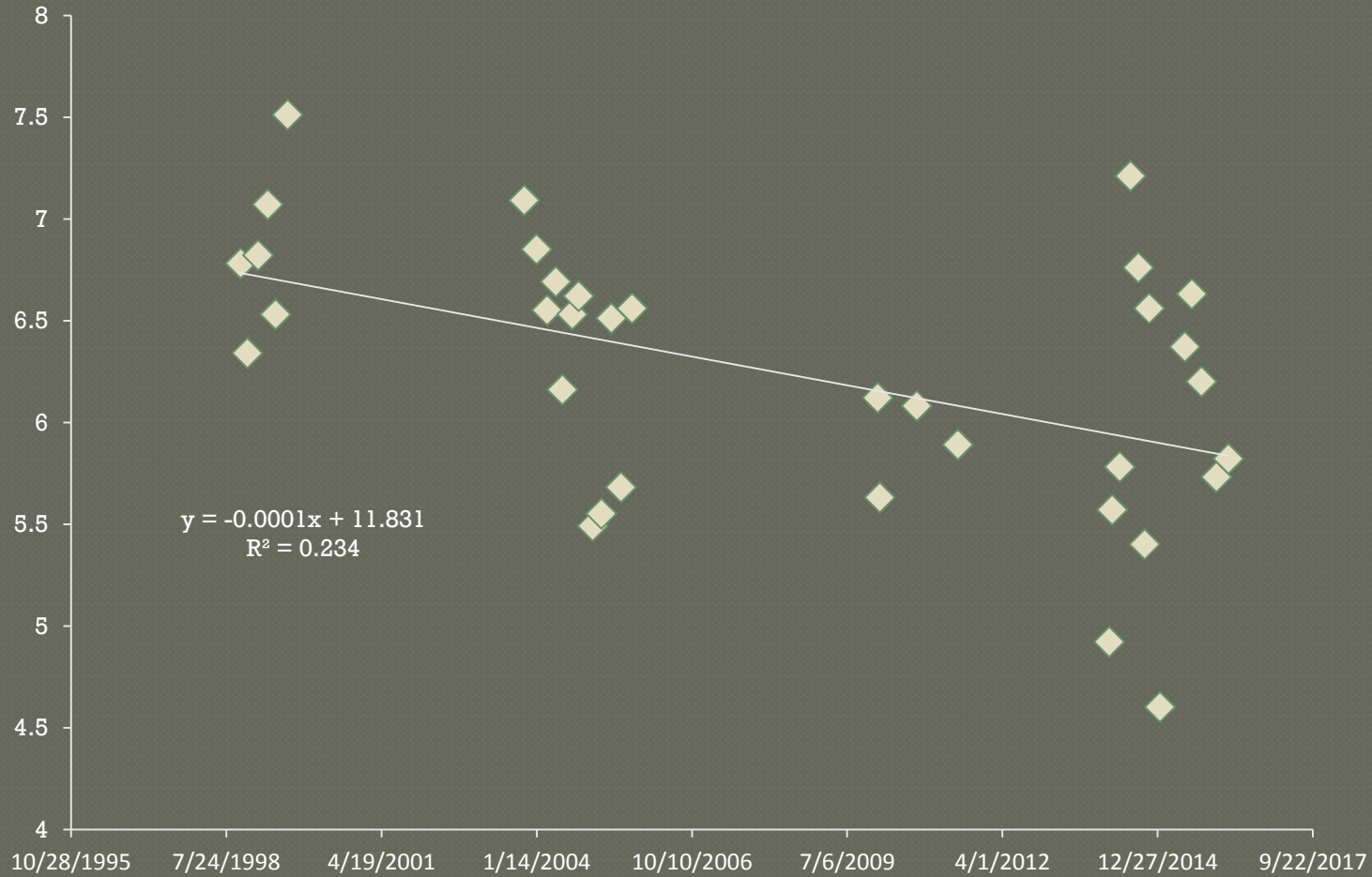


ARK0138

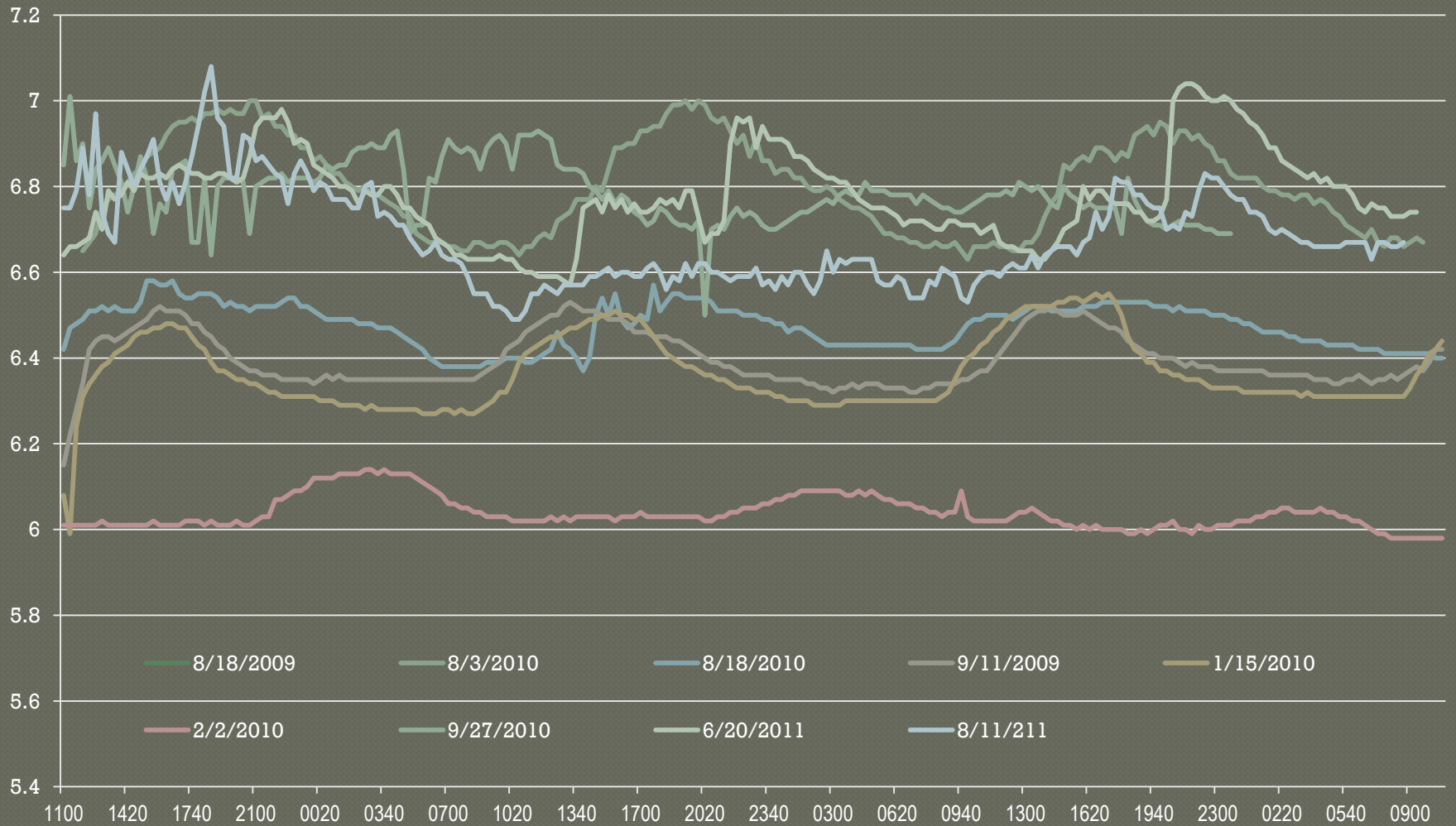
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# ARK0138



# ARK0138



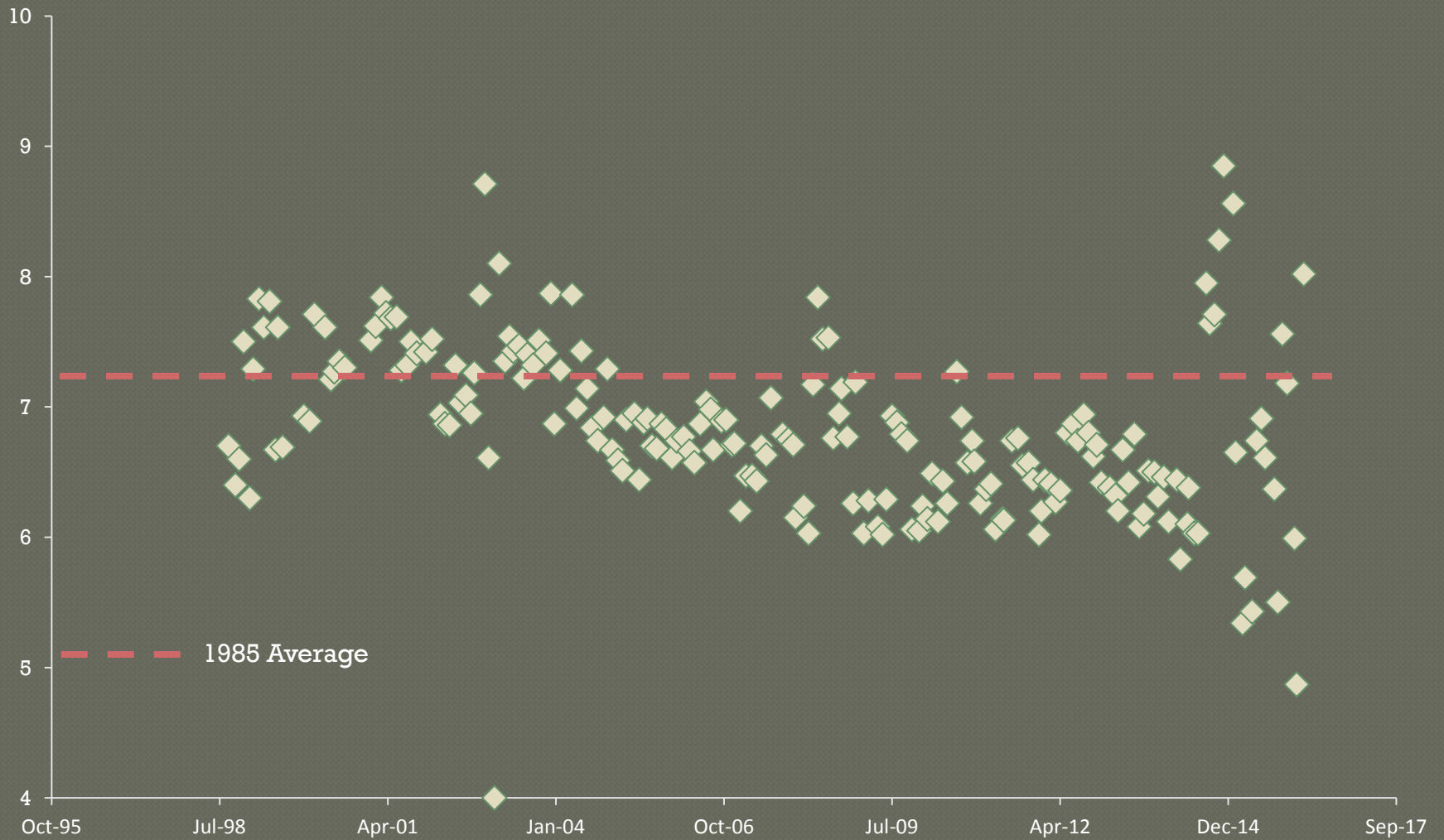


# ARK0042

- Seasonality
- pH vs. flow
- Trends



# ARK0042



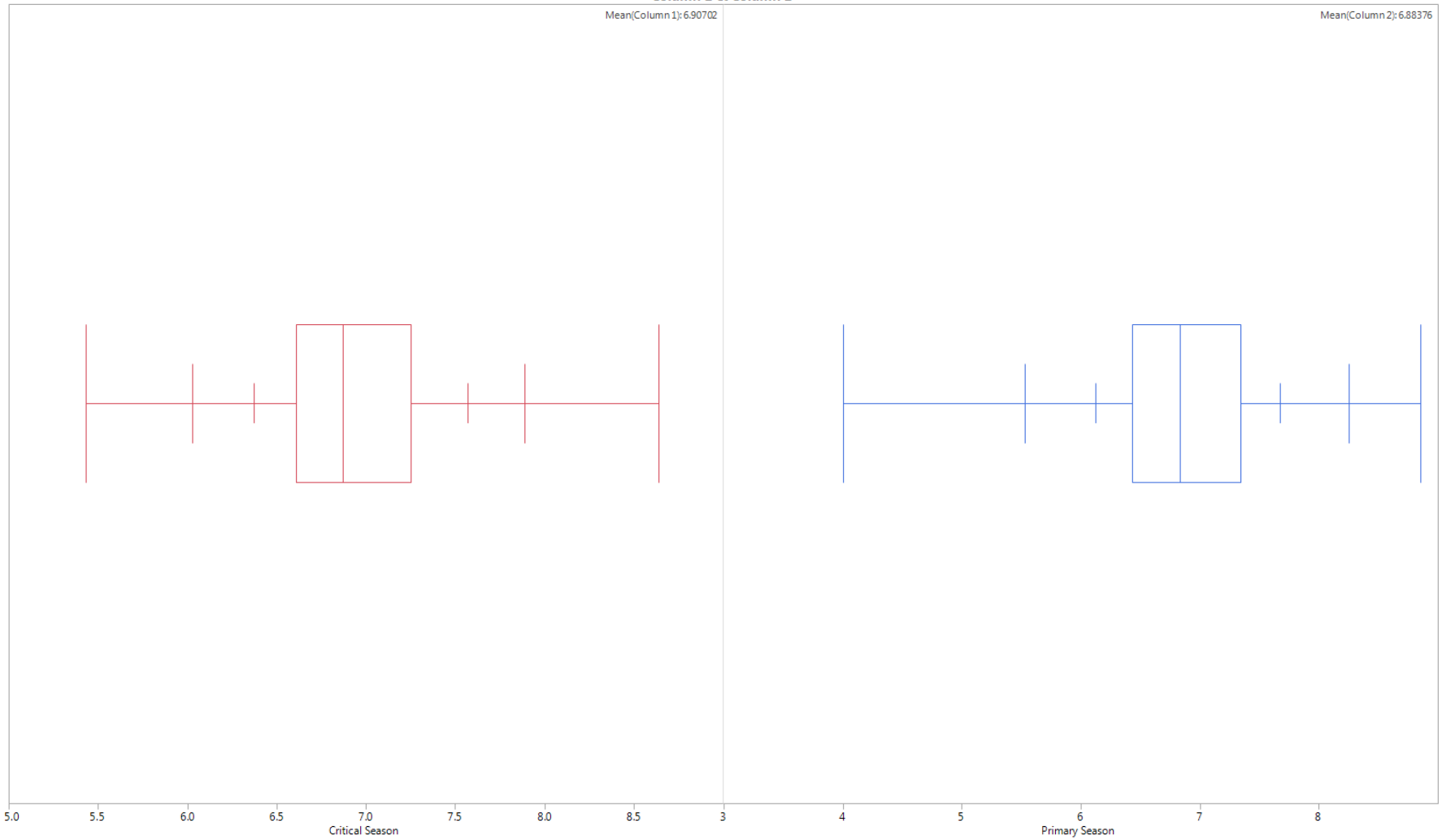
# ARK0042

Column 1 & Column 2

Mean(Column 1): 6.90702

Mean(Column 2): 6.88376

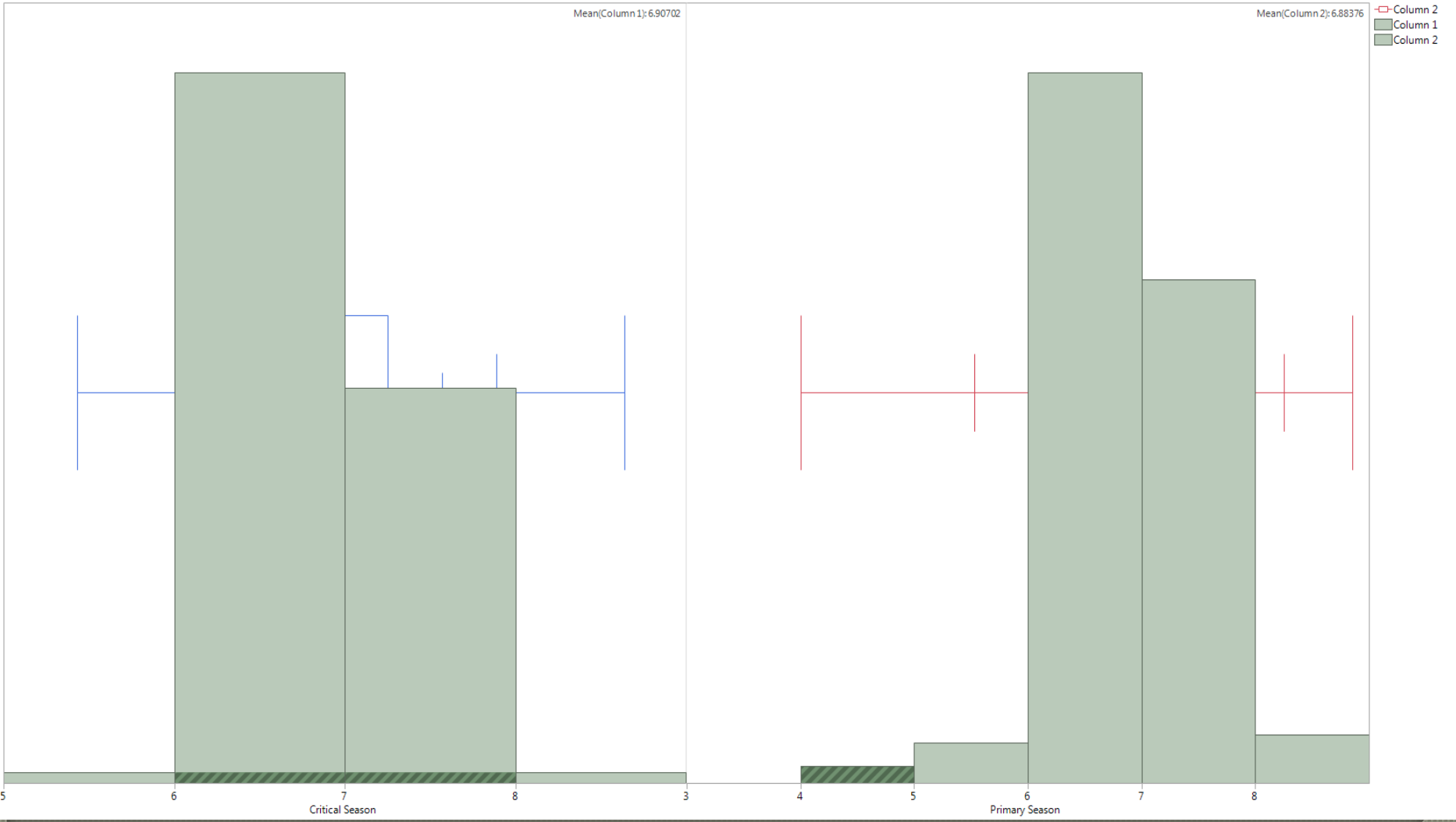
Column 1  
Column 2





# ARK0042

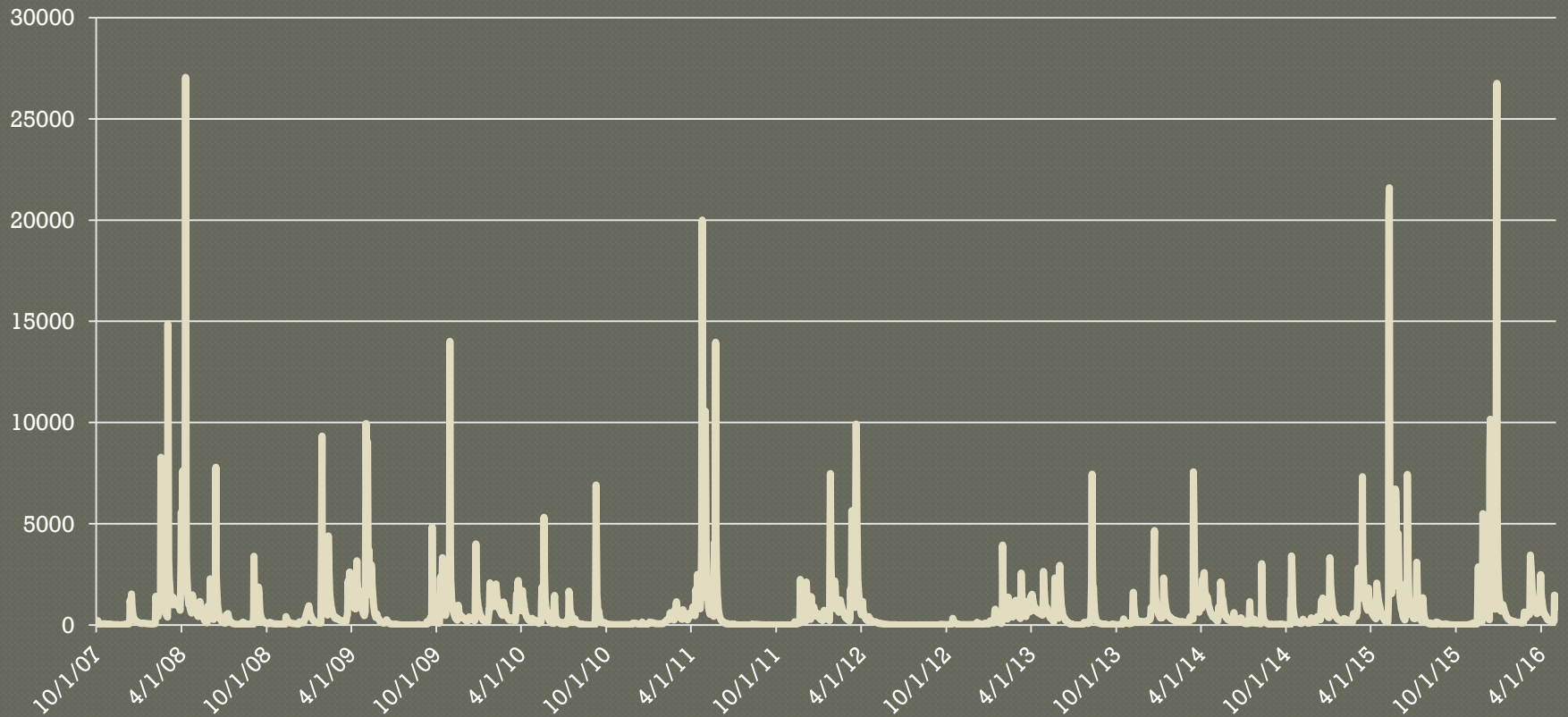
Column 1 & Column 2



# Mulberry River

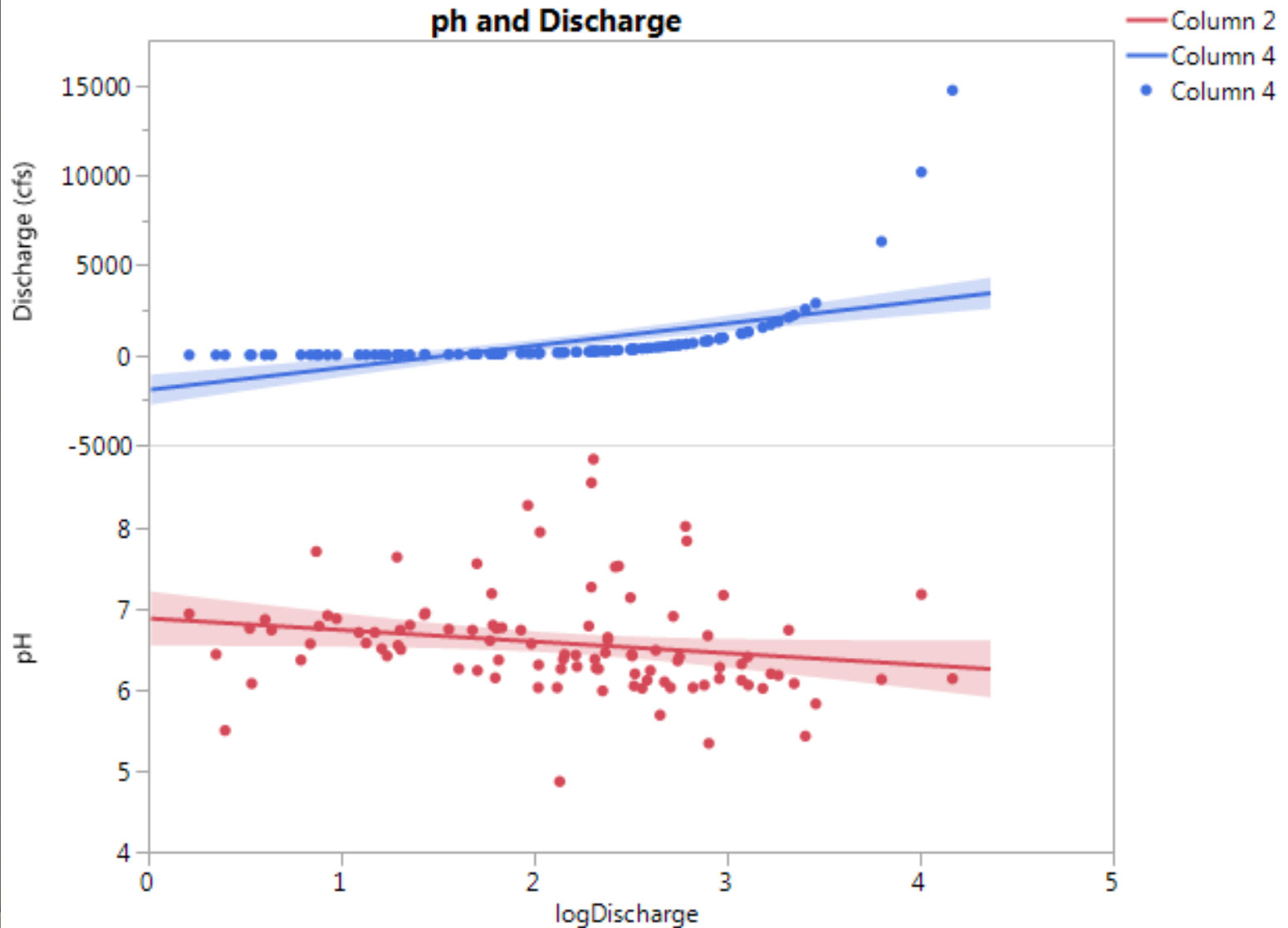
USGS 0725000

## Daily Average Discharge



# Mulberry River

Discharge and pH



# Fish Community Structure Index

<b>Ecoregion</b>	<b>Total Score</b>	<b>Category</b>	<b>Attribute</b>
Ozark Highlands Boston Mountains	25-32	Mostly Similar	Comparable to the best situation to be expected. Balanced trophic structure and optimum community structure present.
Ouachita Mountains AR River Valley	24-17	Generally Similar	Community structure less than expected. Taxa richness lower than expected. Some intolerant taxa loss. Percent contribution of tolerant forms may increase.
Typical Gulf Coastal	16-9	Somewhat Similar	Obvious decline in taxa richness due to the loss of tolerant forms. Loss of Key and Indicator taxa.
Spring-Influenced Gulf Coastal	0-8	Not Similar	Few taxa present and normally dominated by one (1) or two (2) taxa.



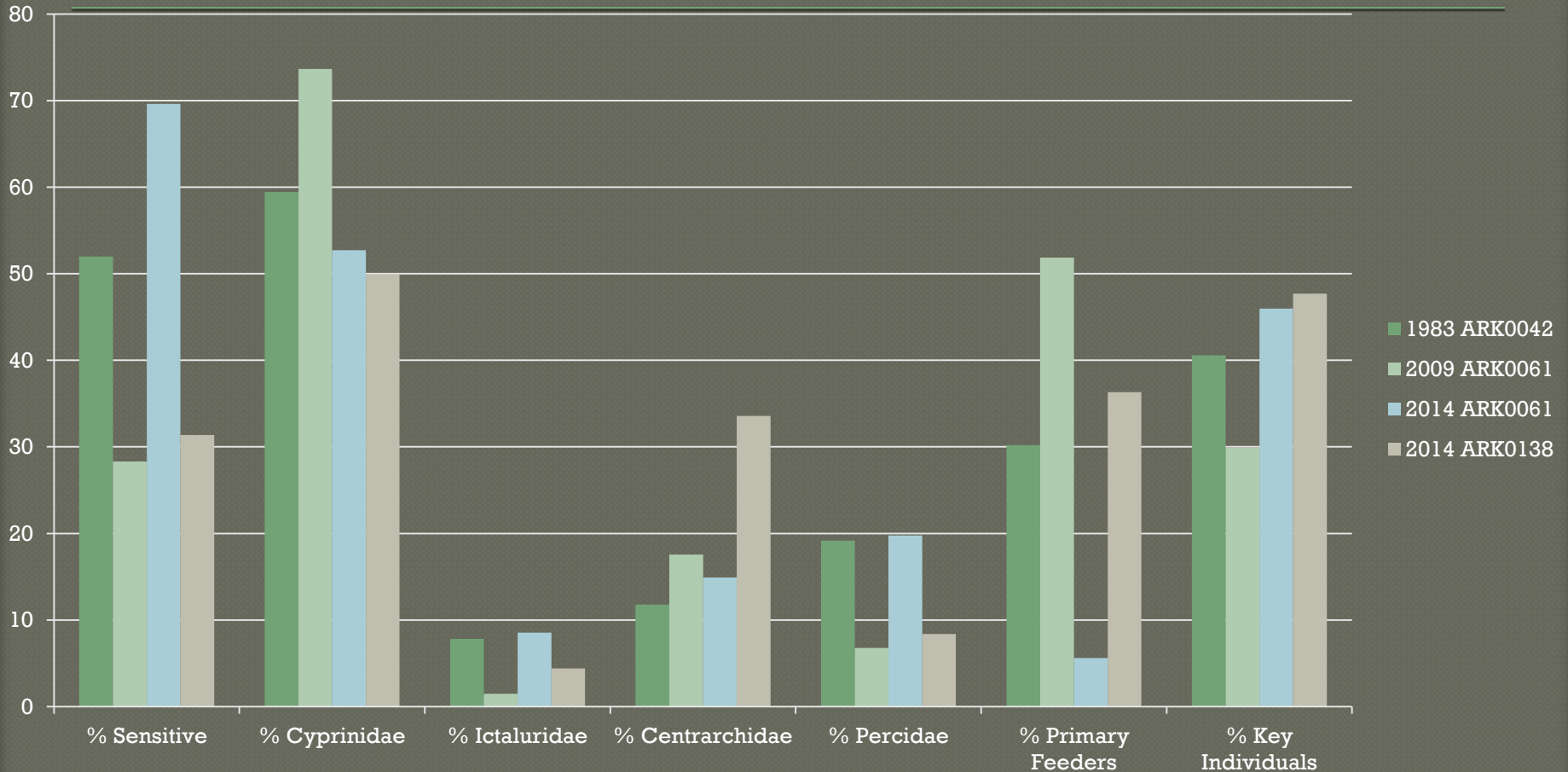
# Fish Community Structure Index

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- % Sensitive
- % Cyprinidae
- % Ictaluridae
- % Centrarchidae
- % Percidae
- % Primary Feeders
- % Key Individuals
- Diversity

# Mulberry River

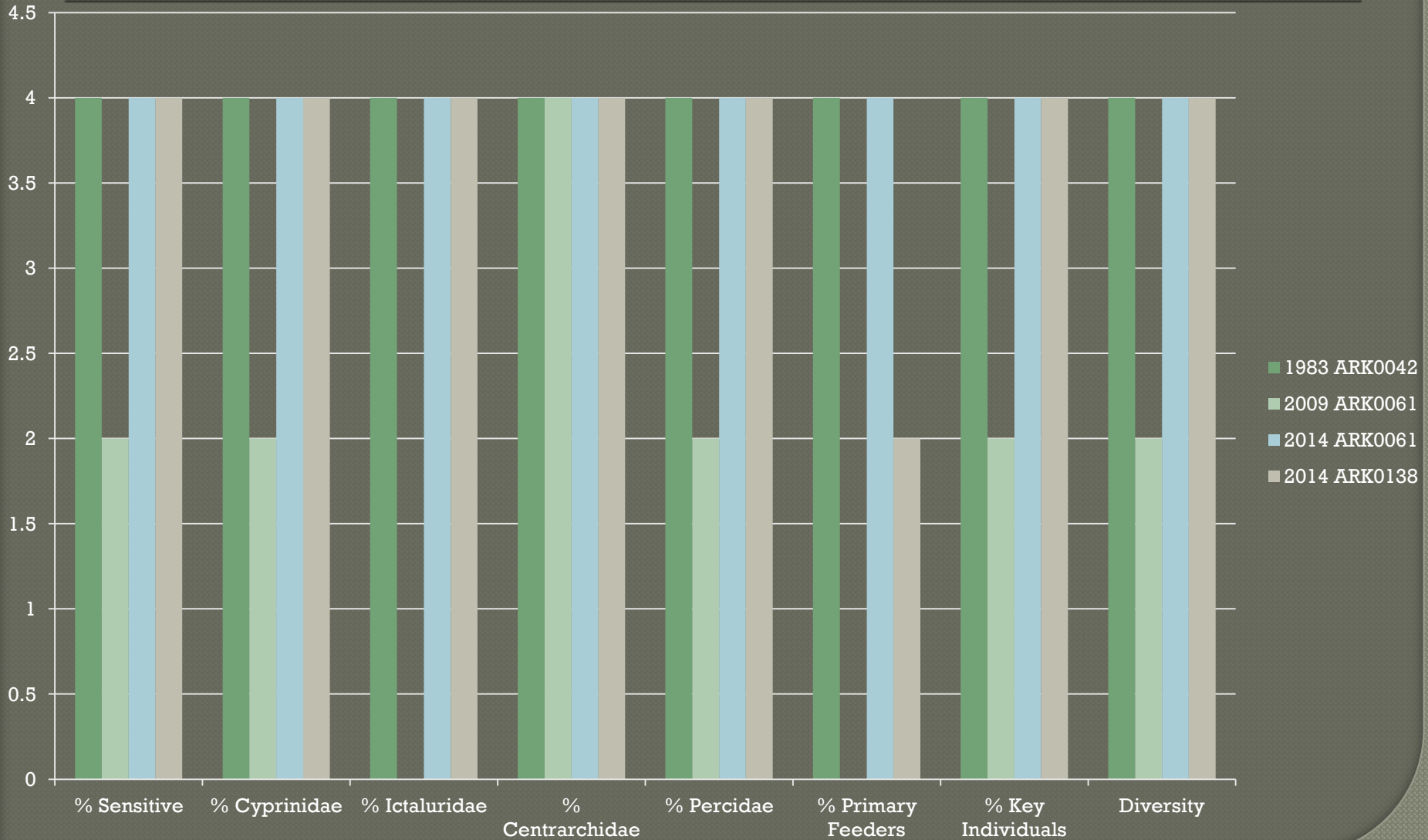
## Aquatic Life (Fishery) Designated Use





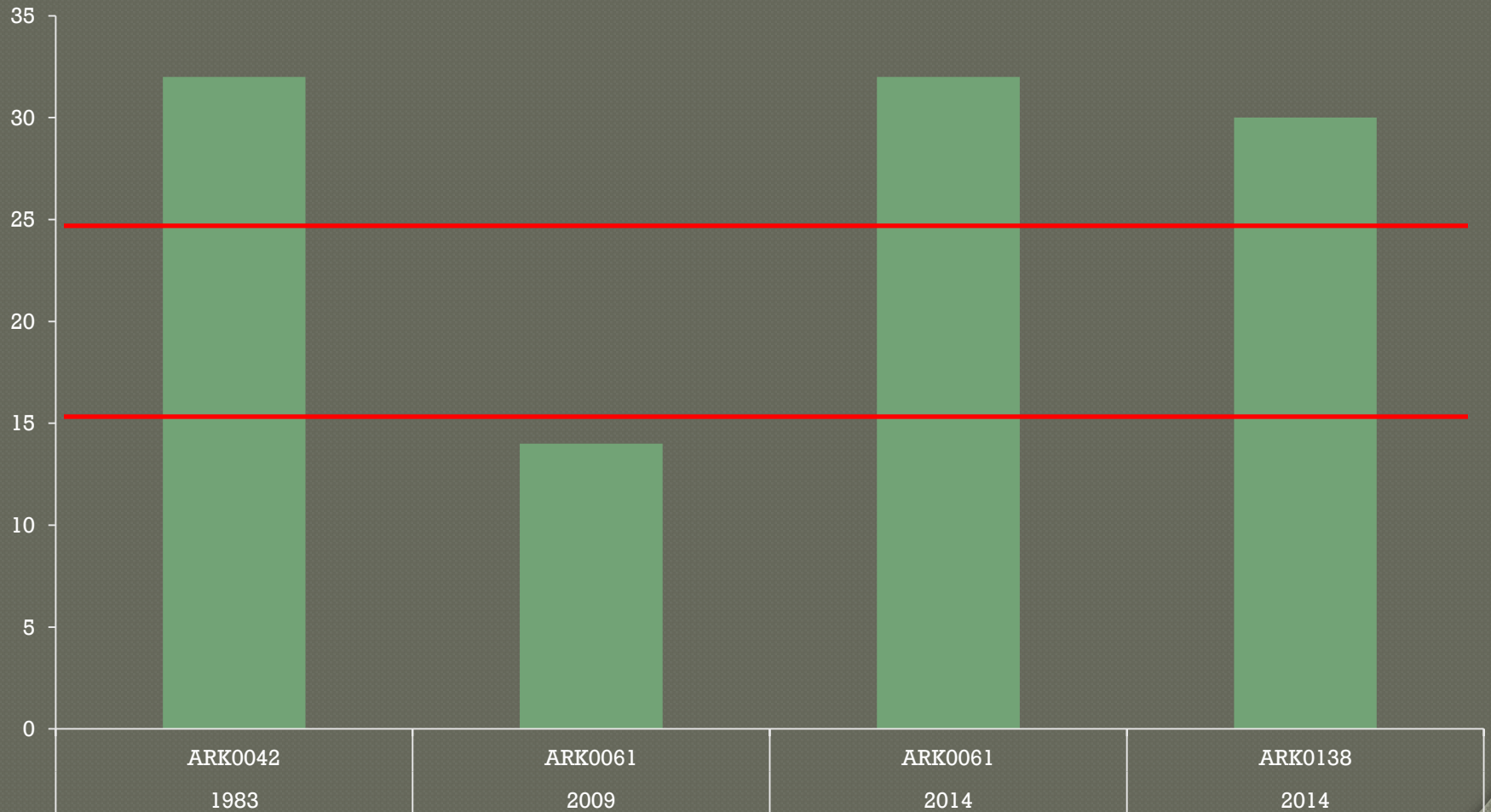
# Mulberry River

## Aquatic Life (Fishery) Designated Use



# Mulberry River

Aquatic Life (Fishery) Designated Use



# Mulberry River

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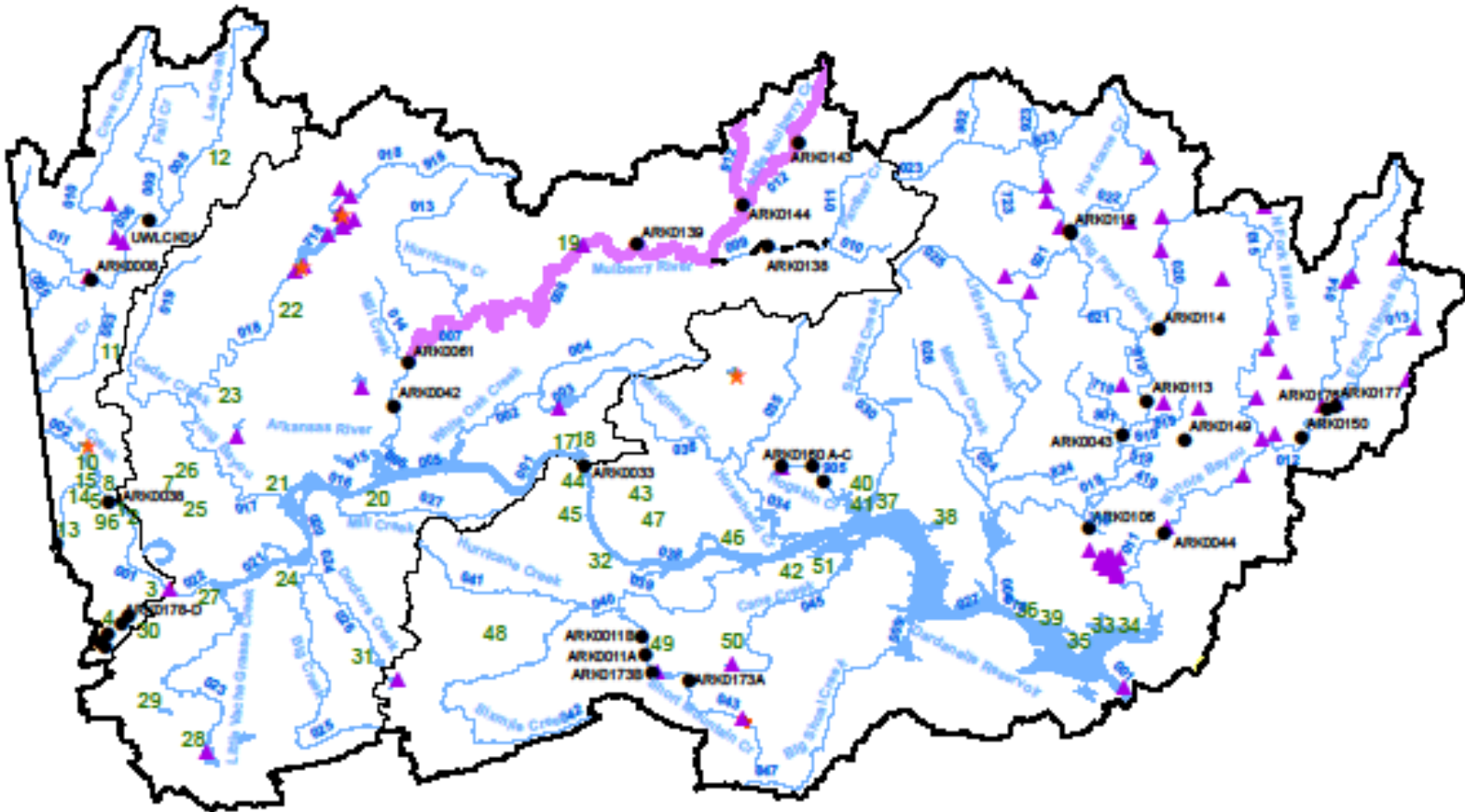
- 2008 Segment 009 impaired for pH
- 2009 TMDL
- 2016 Draft List
  - Little Mulberry
  - Friley Creek
  - Mulberry River Segments 007, 008, 009

0 50 100 200 300 400 Miles



3H

- ★ WQMS - Lakes
- WQMS - Streams
- ▲ Outside Data Monitoring Station
- 2016 Draft Category 5 Lakes
- 2016 Draft Category 4a Lakes
- 2016 Draft Category 4a
- 2016 Draft Category 5 Streams
- 2016 Draft Category 1b
- 1 Active NPDES Permits



# What's Next?

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- ◉ Mo(o)re data



