

# ADEQ

ARKANSAS  
Department of Environmental Quality



## ADEQ'S WATER QUALITY MONITORING AND ASSESSMENT

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# INTRODUCTION OF PROCESS 303(D)

2016

## ASSESSMENT METHODOLOGY



for the Preparation of

*The 2016 Integrated  
Water Quality Monitoring  
and Assessment Report*

Pursuant to Clean Water Act Sections 303(d) and 305(b)



- Assessment of ADEQ data via WQAR software
- Solicit data from outside sources
- Ensure data from outside sources meet all assessment requirements
- Assessment of outside data that meets requirements
- QA/QC draft 303(d) list



# STREAM SEGMENTS ASSESSED

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	Assessed Total (miles)
Supporting all assessed uses	6,803.1
Not supporting a use	3,355.3
Total Waters Assessed	10,018.0

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# EXAMPLE CREEK *E. coli* ASSESSMENT

- Example Creek is not an ESW, ERW, NSW, or Lake
- The single sample *E. coli* standard is 410 colonies per 100 mL of sample
- There are 9 samples taken within the primary contact season of 2013
- Greater than 25% (5 of 9) of samples exceed the standard of 410 colonies per 100 mL
- Example Creek would be listed as impaired assuming all requirements for assessment were met

Date Sampled	<i>E. coli</i> (cfu/100ml)
2/5/2013	50
3/4/2013	54
4/4/2013	88
5/4/2013	250
5/25/2013	520
6/3/2013	630
6/20/2013	480
7/3/2013	123
7/22/2013	594
8/5/2013	222
9/6/2013	478
9/22/2013	240
4/2/2014	25
4/10/2014	21
5/23/2014	326
6/3/2014	238
6/15/2014	121
6/20/2015	87
7/10/2014	57
8/20/2014	65
9/10/2014	357

# 303(d) DATA INTEGRITY REVIEW

- Consider ADEQ's data and other "existing and readily available" data
- Strictly adhere to Assessment Methodology
- Be consistent across the state
- Data Integrity Review completed by March 29; to EPA by April 1



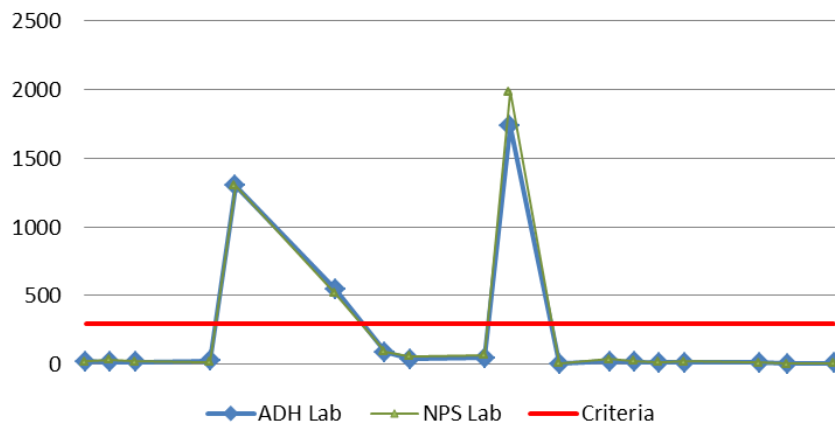
# WHAT IS QUALIFYING DATA?

Qualifying data must:

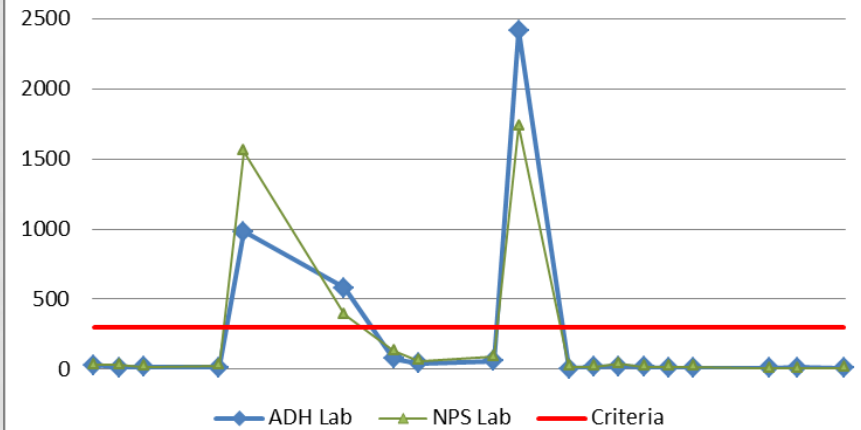
- be actual annual ambient conditions
- meet or beat ADEQ's QA/QC protocol
- be analyzed in a state-certified laboratory
- not be influenced by a discharge
- fall within the period of record
  - April 1, 2010 – March 31, 2015

# BUFFALO RIVER & BIG CREEK DATA (MARCH 2015 - OCTOBER 2015)

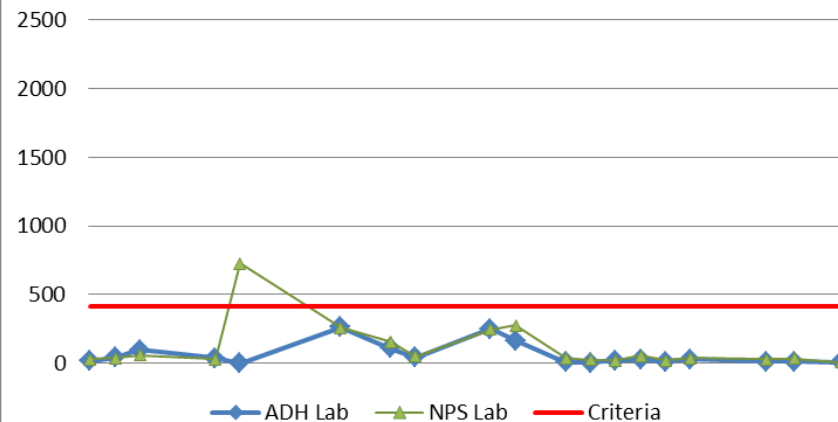
### Buffalo River Upstream of Carver Access



### Buffalo River Downstream of Carver Access

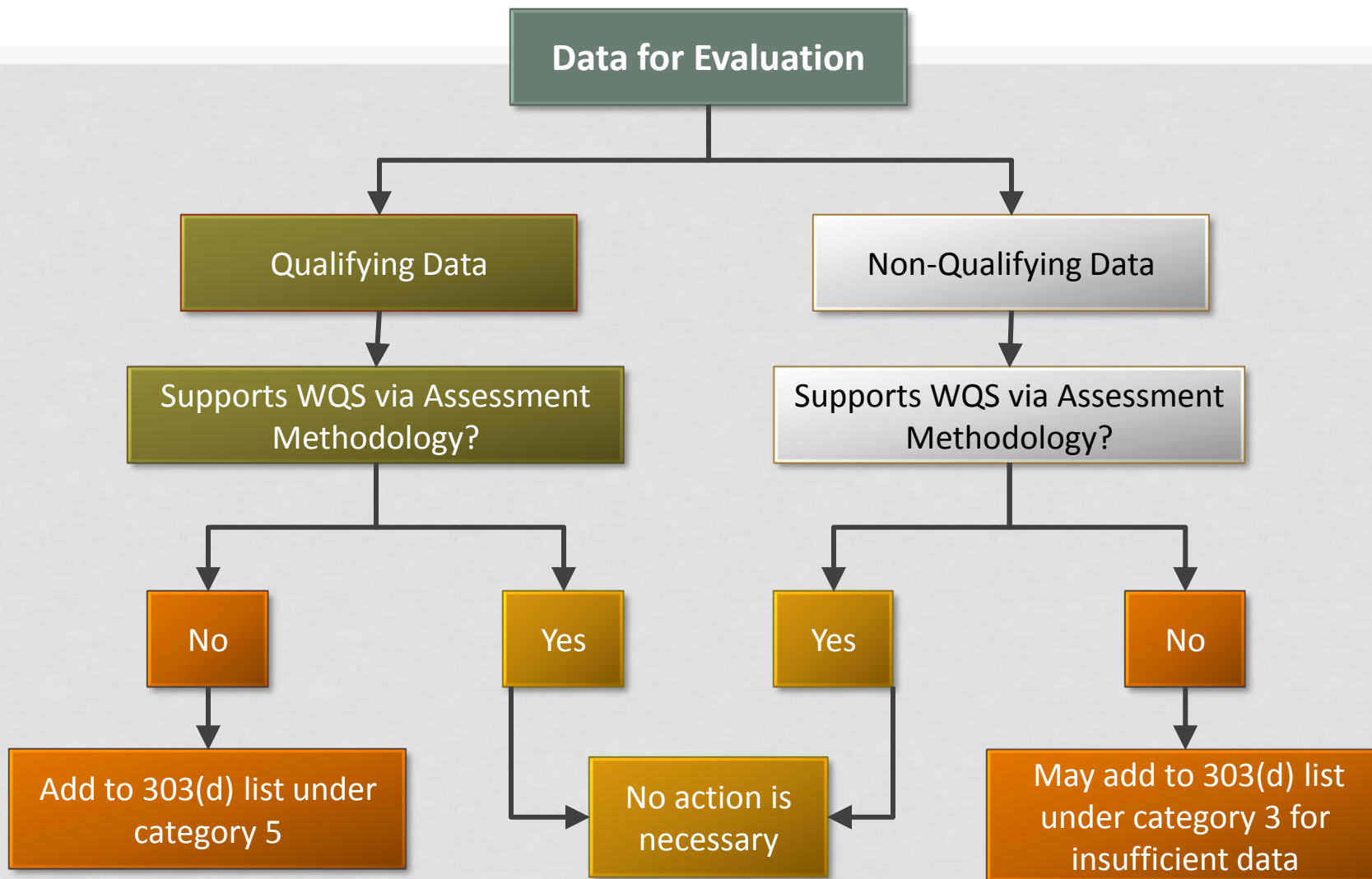


### Big Creek Near Carver Access





# DATA REVIEW FLOWCHART



# RELATED SCIENTIFIC STUDIES

- Presented by:
  - Brian Haggard, Ph. D. of the University of Arkansas Agriculture Department
  - Andrew Sharpley, Ph. D. of the University of Arkansas Agriculture Department