

Project 07-1300  
Monitoring the Effectiveness of BMP at  
Reducing  
Total Suspended Solids in Agricultural  
Runoff



eco

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# Agricultural Runoff

In the 2000 National Water Quality Inventory, states reported that **agricultural nonpoint source (NPS) pollution is the leading source of water quality impacts** on surveyed rivers and lakes, the second largest source of impairments to wetlands, and a major contributor to contamination of surveyed estuaries and ground water.

Source: [www.epa.gov](http://www.epa.gov)



# Project Background

Agriculture runoff has been identified as a contributing source to nonpoint source pollution and therefore negatively effecting water quality.

BMP for agricultural runoff are being implemented by ANRC in efforts to reduce NPS from agricultural runoff.

Quantify water quality of agricultural runoff prior and after the implementation of BMP to determine their effectiveness at reducing nonpoint source pollution.

Determine the effectiveness of BMP at reducing nonpoint source pollution.



# Flashboard Risers

Water control structures made with removable boards. When placed in drainage ditches and canals flashboard risers allow farmers to control soil moisture and can result in improved downstream water quality. (USGS, 1995)

They can be used to adjust the level of water held up behind the weir.

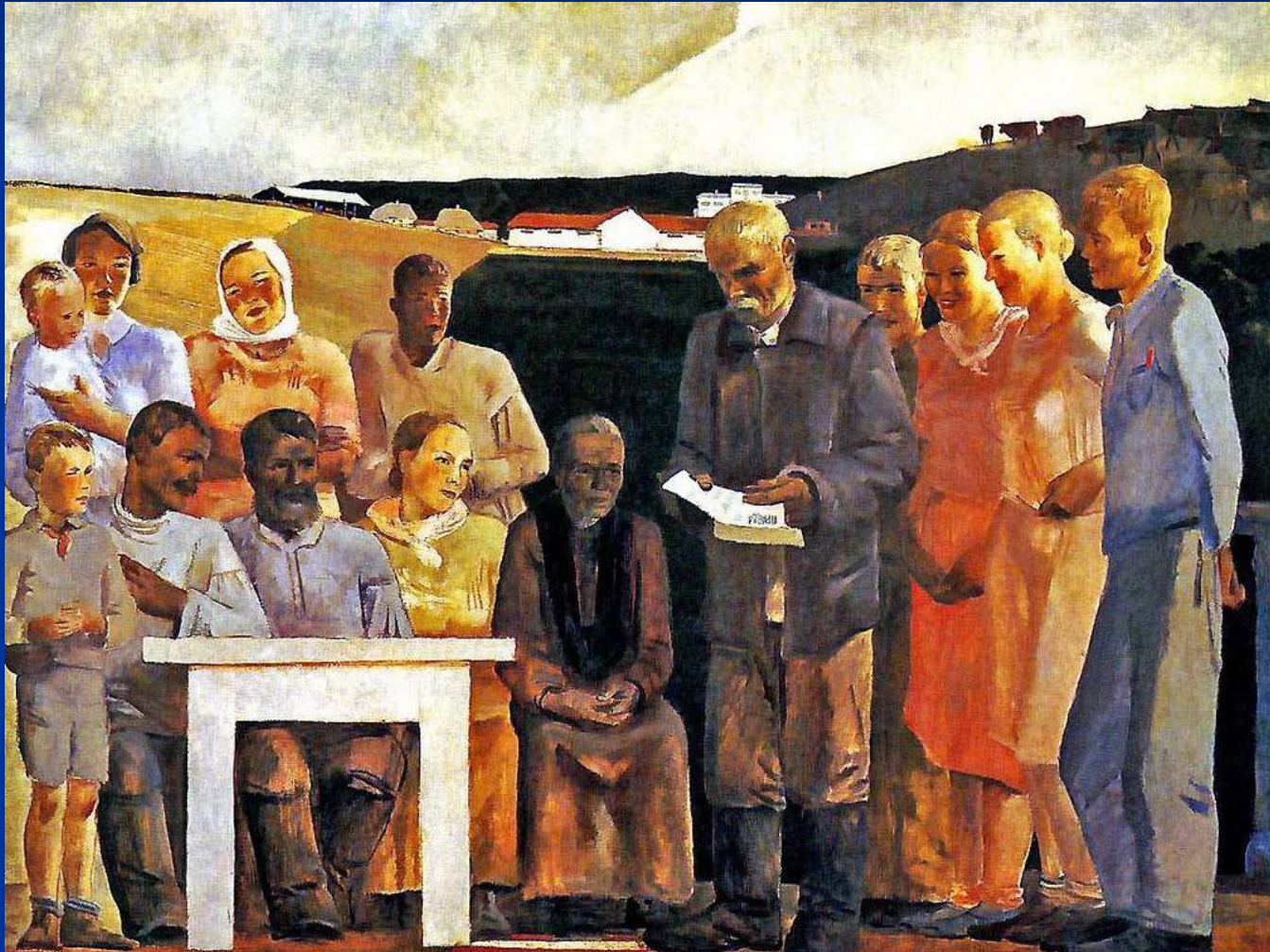
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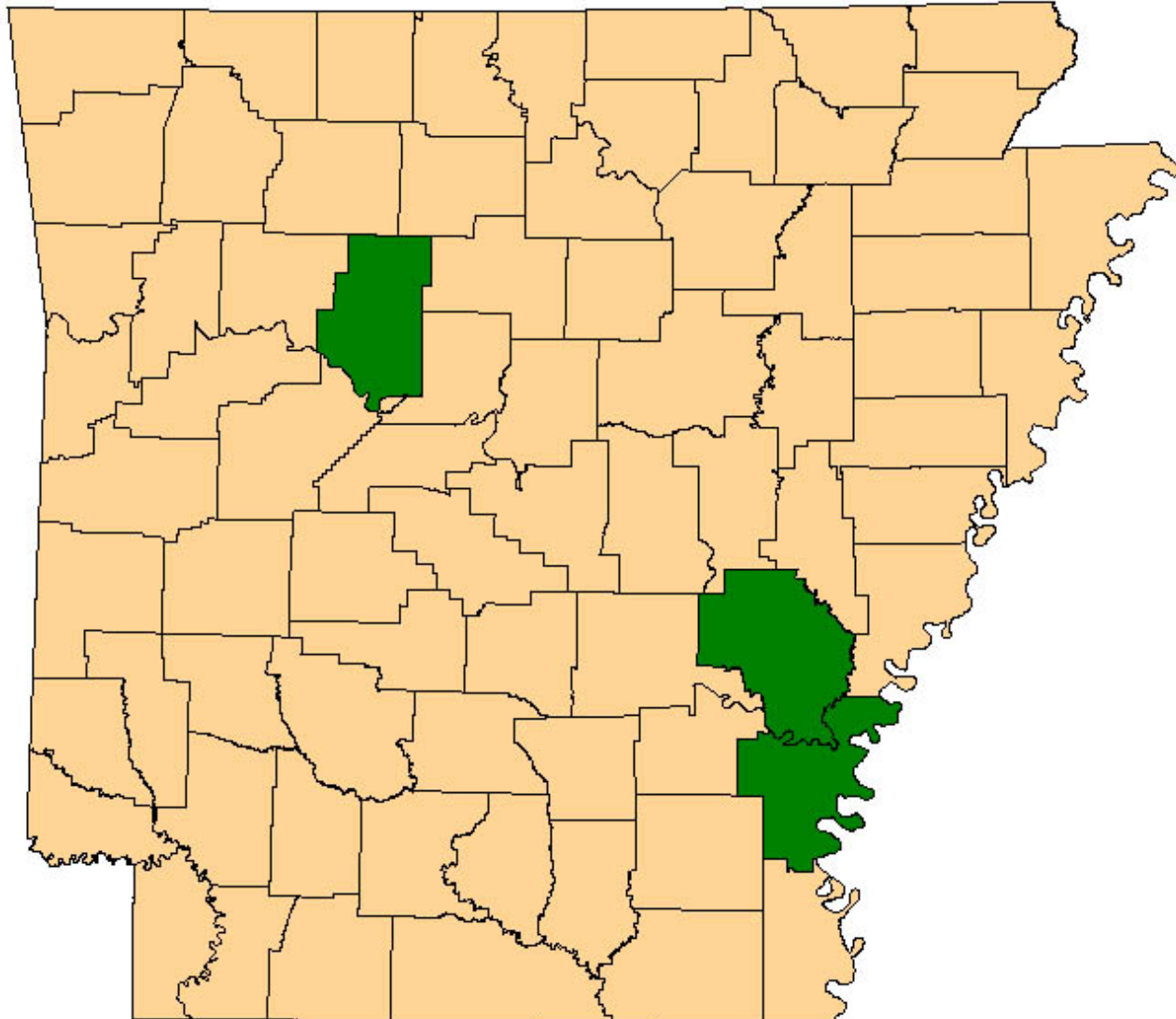


# Landowner Relations

Meet landowners and continue communication with landowners.



# Develop Monitoring Sites





# Monitoring Sites

- Pre BMP Implementation
  - Identify characteristic sites that currently experience erosion and that will be future locations for BMP installation





# Monitoring Sites

- Post BMP Implementation
  - Identify characteristic sites that have existing BMP





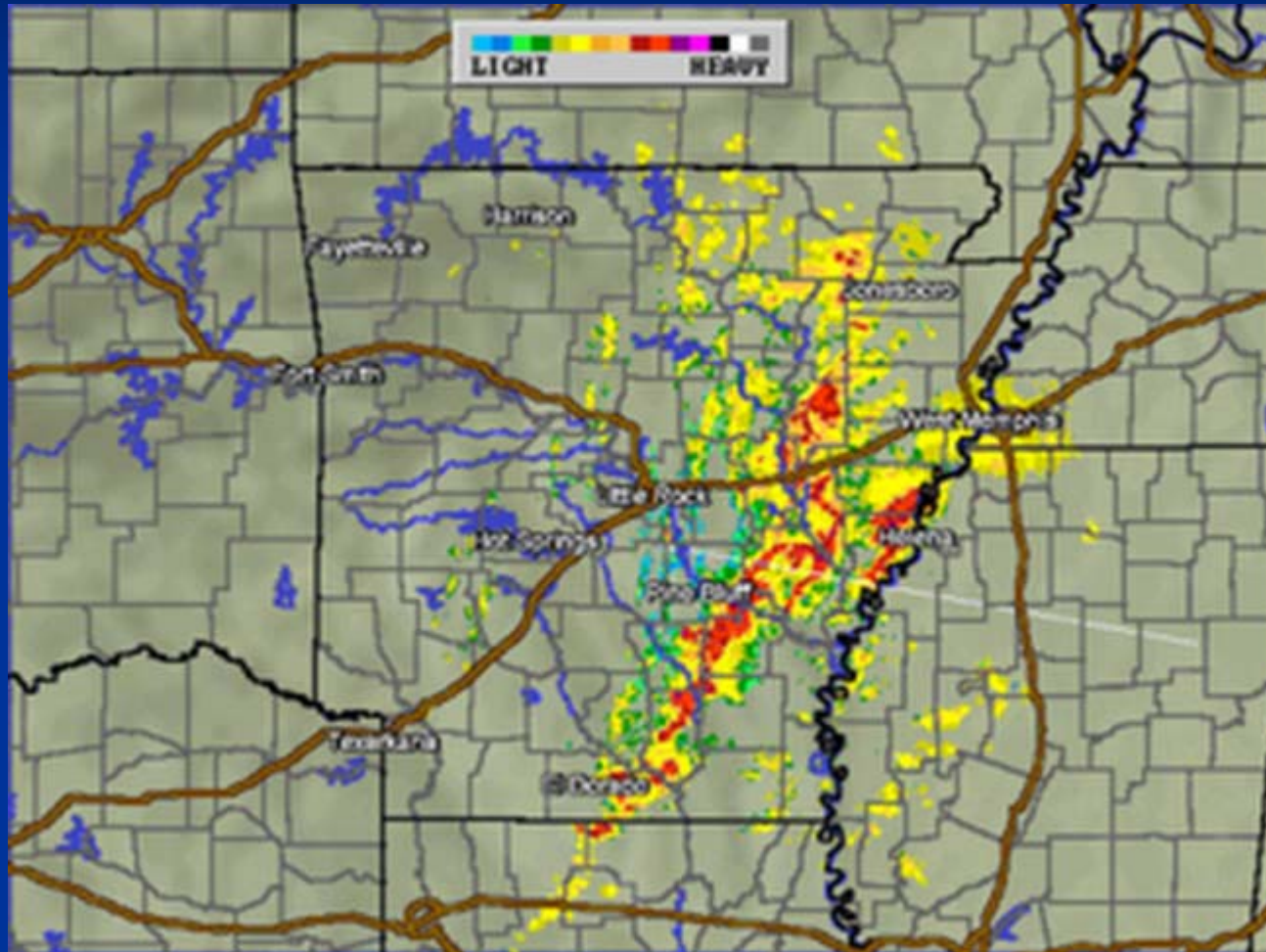
# Monitoring Design



- Collect samples at all sites during runoff events
- Storm water runoff
- Irrigated runoff



# Storm Monitoring



# Storm water Monitoring



# Irrigated Runoff







To date, we've collected and analyzed 144 samples.

- 48 samples were collected at eroded locations with no flashboard riser
- 96 samples were collected at locations with flashboard risers
- 80 samples were from storm water runoff
- 64 samples were from irrigated runoff

Current Sample Set (N=144)	TSS (mg/L)
Mean	270.3
Minimum	2
Maximum	2130

# Thank You!

To receive a copy of the final  
report please contact:

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