Year Two Review of Water Quality Monitoring on the Upper Strawberry River Project 07-1000

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Sampling sites

Strawberry River Sub Watersheds Monitoring Points

Fulton County

Legend
- GC Lower
- GC Upper
- LS Lower
- SC Lower
- SC Upper
- LS Upper

Salem
Greasy Creek
Little Strawberry
Sandy Creek

7,400 0 7,400 14,800 22,200 29,600 Feet
Overview

• Major headwater streams in the upper Strawberry River watershed
  – Little Strawberry (LS)
  – Sandy Creek (SC)
  – Greasy Creek (GC)

• Above and below BMP implementation

• Surface Water Quality Tests
  – Nutrients
    • Nitrites
    • Nitrates
    • Ortho-Phosphates
  – Total Suspended Solids
Little Strawberry River Subwatershed

- Largest subwatershed of the Strawberry River
Little Strawberry Upper
Little Strawberry Lower
Little Strawberry Total Suspended Solid (TSS) Data

Upper

Lower
Greasy Creek Subwatershed

- 2nd largest subwatershed of the Strawberry River
Greasy Creek Lower
Sandy Creek Subwatershed

- Smallest subwatershed of the Strawberry River
Sandy Creek
Upper
Sandy Creek
Lower
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### High and Mean Values: Pre-BMP 2008, 2009, 2010

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Other Analyses

• Stream bank erosion
• Benthic macroinvertebrate survey
• Escherichia coli

Supported by 104-B Grant: AWRC and Arkansas State University
• Little Strawberry
  • \( \approx 2.74 \text{ km (1.7 miles)} \) surveyed
  • 24 sites determined of severe or very severe erosion
• Greasy Creek
  • ≈3.17 km (2.0 miles) surveyed
  • 16 sites determined of severe or very severe erosion
• Sandy Creek
  • ≈6.63 km (4.1 miles) surveyed
  • 22 sites determined of severe or very severe erosion
Benthic Macroinvertebrates Abundance

Spring 2009
Low: SCLO (21)
High: GCLO (456)

Fall 2009
Low: SCLO (135)
High: LSUP (295)
Ephemeroptera, Plecoptera and Trichoptera (EPT)

1 or less: POOR

Between 2 and 5: MODERATE

More than 5: GOOD

Spring 2009

Fall 2009

- LSUP: 9
- LSLO: 12
- GCUP: 4
- SCUP: 4
- SCLO: 4
- GCLO: 9
Questions?