



# Arkansas Forestry Commission



U of A  
Cooperative  
Extension Service  
September 16-18,  
2008

2008 NPS 319 Project Review



# Arkansas Forestry Commission

Project # 05-300

Arkansas Silvicultural NPS Project

## Major Tasks

- ✓ AFC Silviculture BMP Assessment
- ✓ Technical BMP Assistance & Training
- ✓ Non Technical BMP Education
- ✓ Develop Landowner BMP Brochures
- ✓ AFC BMP Guideline Books



# BMP Implementation Assessments

## Statewide BMP Implementation Averages

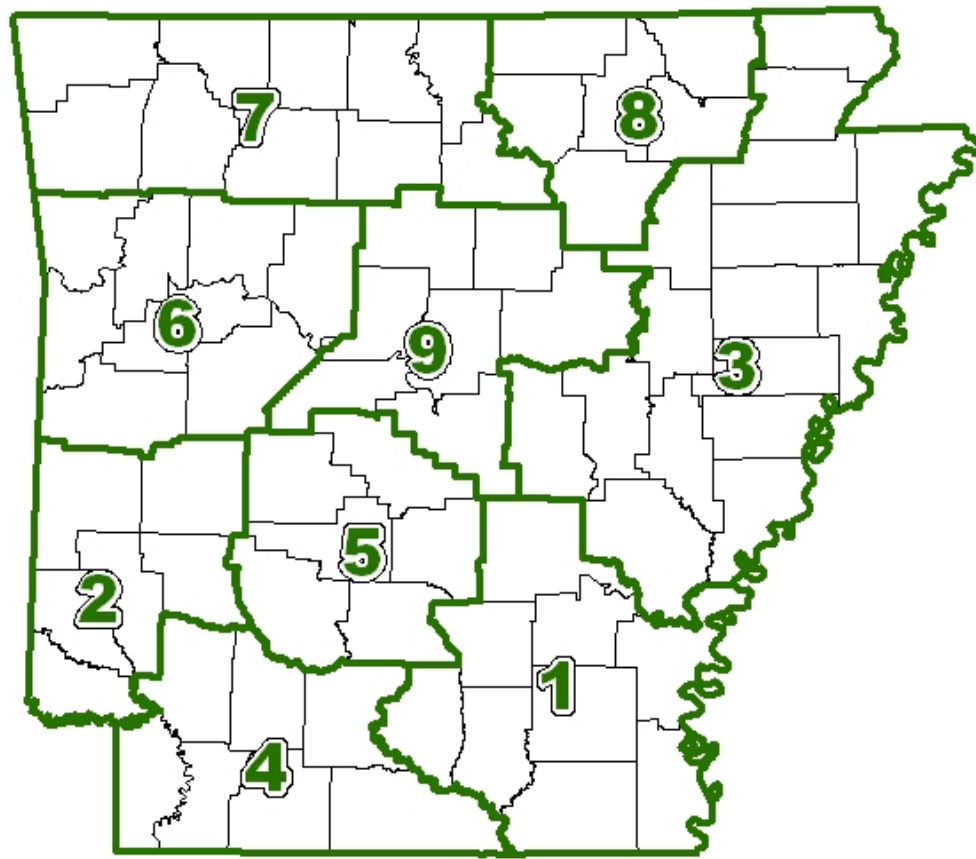
✓ 2007-2008: 86%

✓ 2005-2006: 88%

### Historical Averages

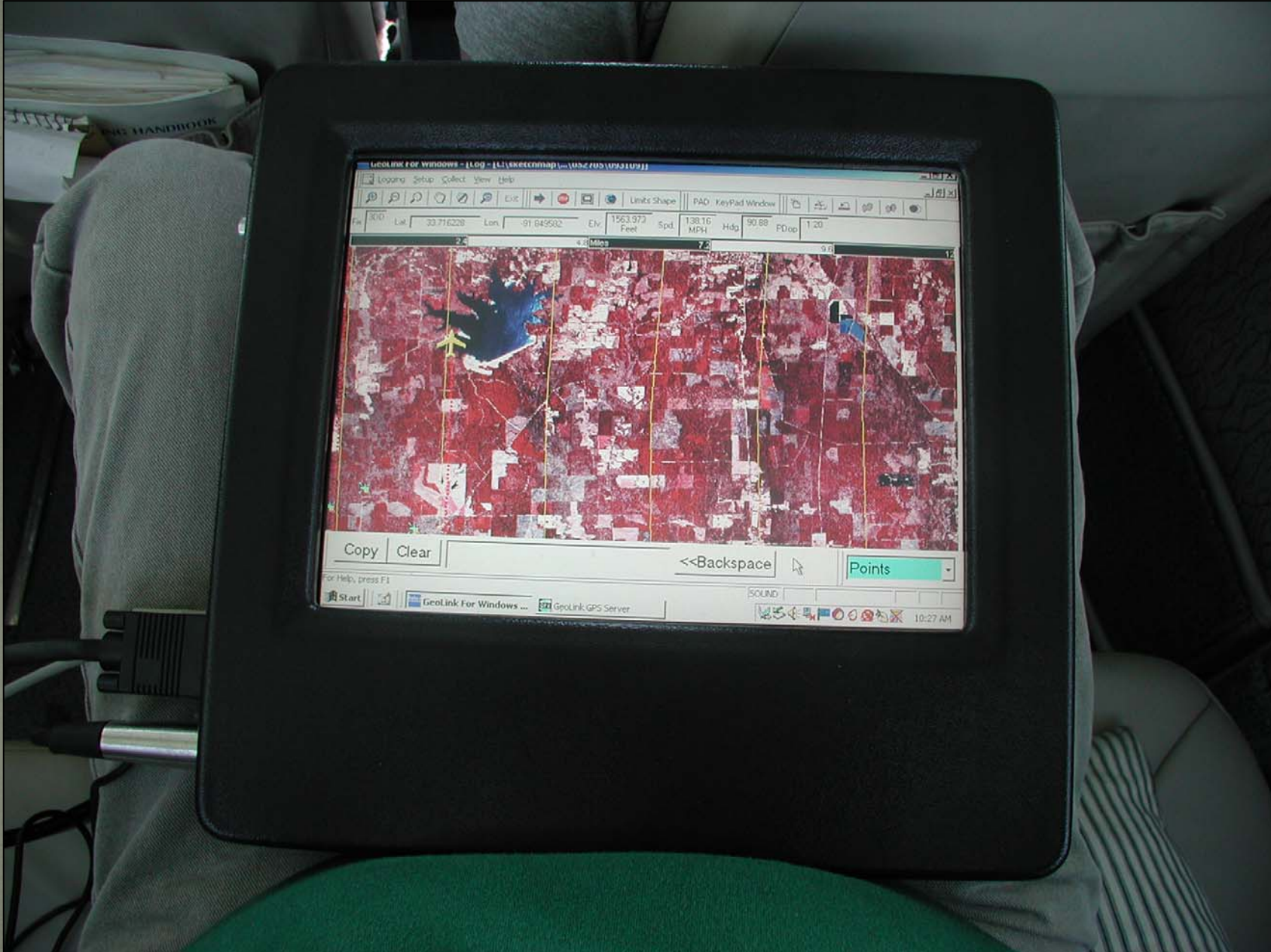
- 2002-2003: 88%
- 2000-2001: 83%
- 1998-1999: 80%
- 1996-1997: 85%

# AFC Districts



# Aerial Assessment of Sites





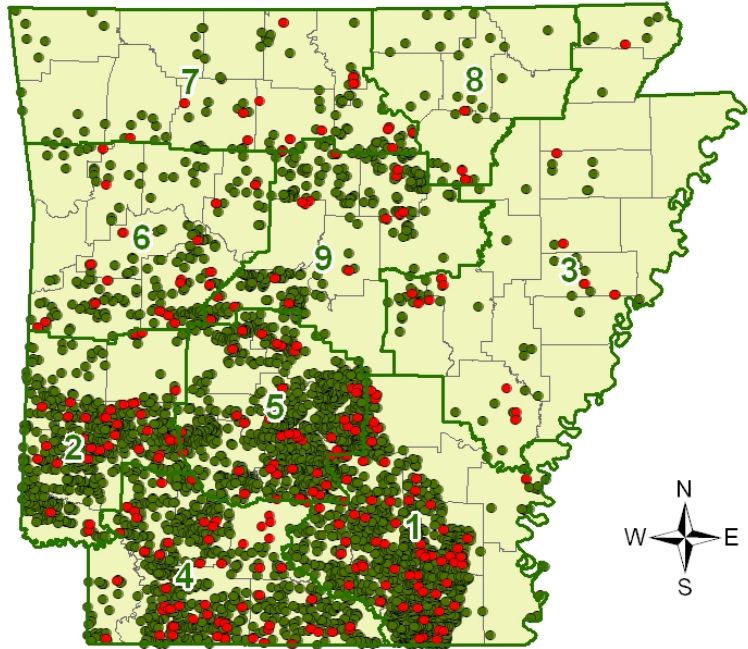




# 2005-2006 BMP Assessment

## 2005-06 BMP Implementation Monitor Map

Overall BMP Implementation on the sites monitored was 88%



0 12.5 25 50 75 100 Miles

- Implementation Monitors = 267
- Logging Operations = 3,478
- AFC District
- County

Total Logging Operations = 3,478

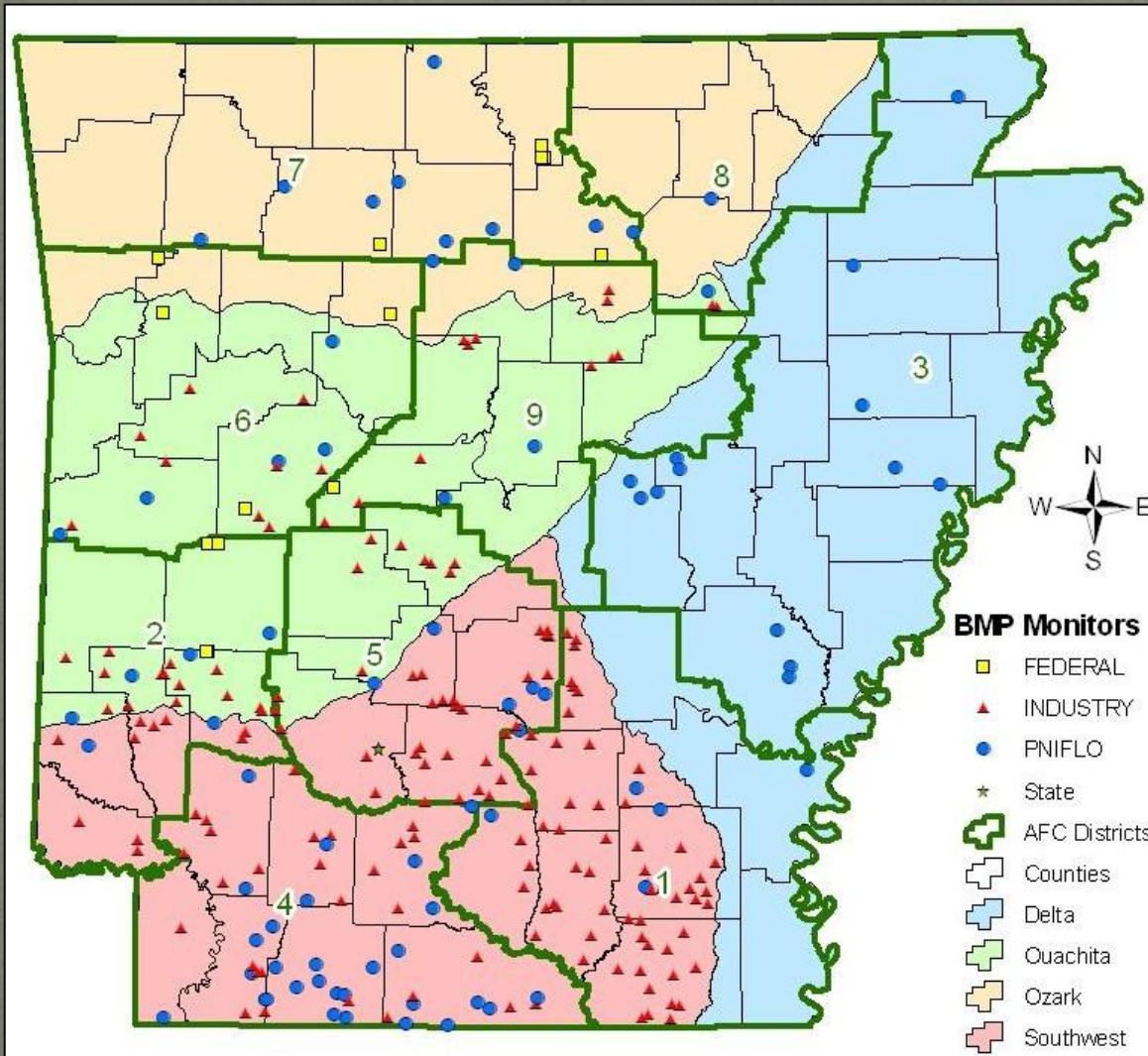
Total Sites Assessed = 267

7.68% of True Population





# 2005-2006 BMP Assessment



Federal = 14  
Industry = 174  
PNIFLO = 78  
State<sup>1</sup> = 6

Total Sites  
Assessed = 267

<sup>1</sup> State ownership not factored in with overall BMP analysis



# 2005-2006 BMP Assessment

## Statewide and Categorical BMP Implementation Averages

Major BMP Category	No. of Sites	Implementation Percent	Margin of Error	Statistical Significance*
Roads	258	84.45	2.10	b
Harvesting	266	94.48	1.30	a
Regeneration	116	87.68	3.52	b
Streamside Management Zones	196	80.22	3.88	c
<b>Overall Implementation</b>	<b>267</b>	<b>87.98</b>	<b>1.63</b>	

\* Implementation percents having a different significance letter are significantly different at the 5 percent probability level.



# 2005-2006 BMP Assessment

## Ownership BMP Implementation Averages

Ownership Class	No. of Sites	Implementation Percent	Margin of Error	Statistical Significance*
PNIFLO	78	80.77	3.57	b
Industry	174	90.42	1.60	a
Federal	14	96.39	2.89	a
State <sup>1</sup>	6	94.51	3.94	--

\* Implementation percents having a different significance letter are significantly different at the 5 percent probability level.

<sup>1</sup> State ownership not factored in with overall BMP analysis



# 2005-2006 BMP Assessment

## AFC District BMP Implementation Averages



District	Number of Tracts	Acres	Implementation Percent	Margin of Error	Statistical Significance*
District 1	65	7,063	91.91	2.01	a
District 2	34	3,995	91.52	2.95	a
District 3	13	865	94.88	4.82	a
<b>District 4</b>	<b>57</b>	<b>4,491</b>	<b>77.32</b>	<b>4.86</b>	<b>b</b>
District 5	45	3,807	86.89	3.99	a
District 6	18	1,444	95.05	2.60	a
District 7	16	985	88.15	5.17	a
District 8	4	640	86.54	5.92	ab
District 9	15	1,315	90.93	4.99	a

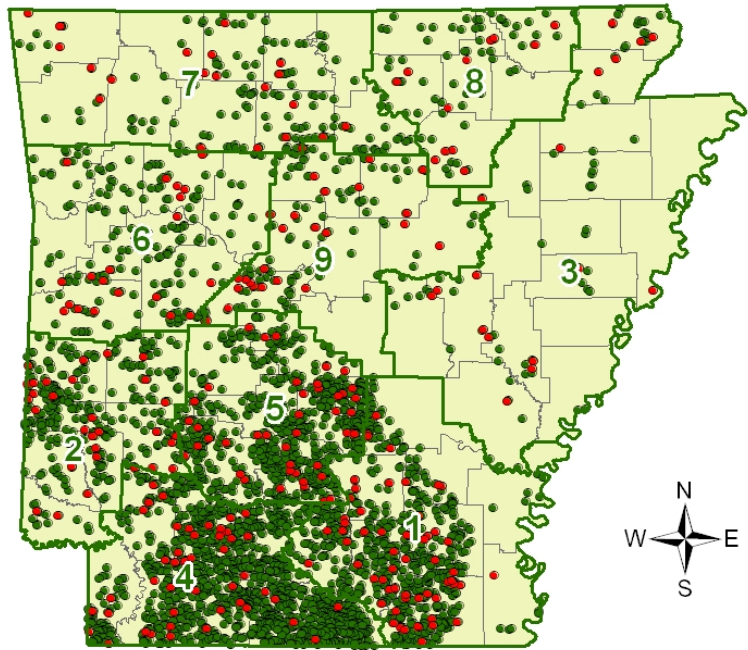
\* Implementation percents having a different significance letter are significantly different at the 5 percent probability level.



# 2007-2008 BMP Assessment

## 2007-08 BMP Implementation Monitor Map

Overall BMP Implementation on the sites monitored was 86%



0 12.5 25 50 75 100 Miles

- Implementation Monitors = 274
- Logging Operations = 3,339
- AFC District
- County

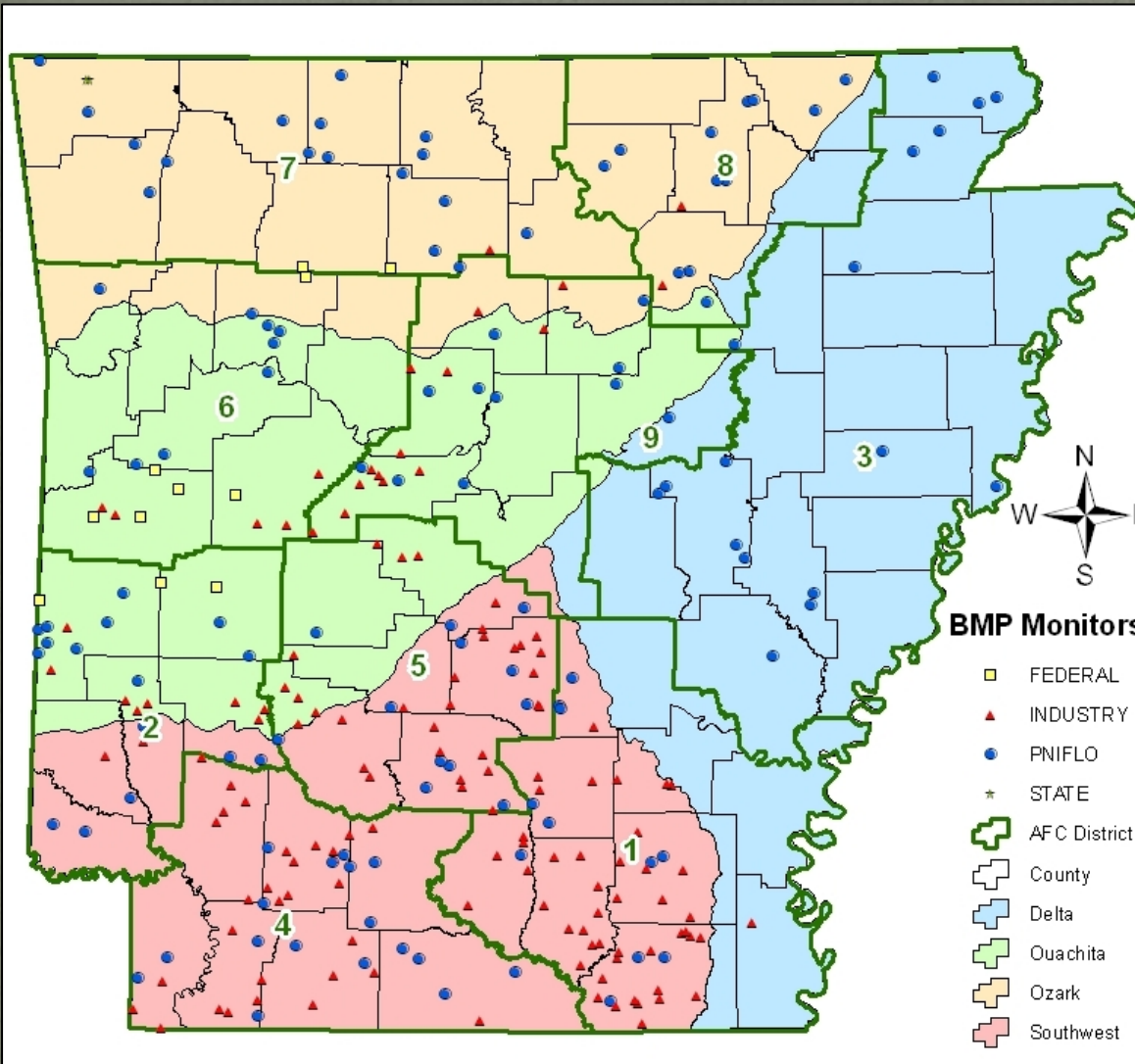
**Total Logging Operations = 3,339**

**Total Sites Assessed = 274**

**8.21% of True Population**



# 2007-2008 BMP Assessment



Federal = 11  
Industry = 138  
PNIFLO = 123  
State = 2

Total Sites  
Assessed = 274



# 2007-2008 BMP Assessment

## Statewide and Categorical BMP Implementation Averages

Major BMP Category	No. of Sites	Implementation Percent	Margin of Error	Statistical Significance*
Roads	172	81.65	2.89	c
Harvesting	274	92.46	1.36	a
Regeneration	95	87.12	4.86	b
Streamside Management Zones	179	80.43	3.72	c
<b>Overall Implementation</b>	<b>274</b>	<b>86.15</b>	<b>1.60</b>	

\* Implementation percents having a different significance letter are significantly different at the 5 percent probability level.



# 2007-2008 BMP Assessment

## Ownership BMP Implementation Averages

Ownership Class	No. of Sites	Implementation Percent	Margin of Error	Statistical Significance*
PNIFLO	123	81.42	2.64	c
Industry	138	89.24	1.82	b
Federal	11	99.10	1.32	a
State	2	92.72	7.66	ab

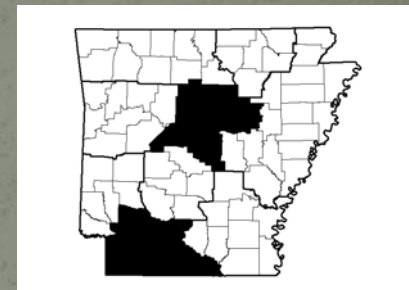
\* Implementation percents having a different significance letter are significantly different at the 5 percent probability level.





# 2007-2008 BMP Assessment

## AFC District BMP Implementation Averages



District	Number of Tracts	Acres	Implementation Percent	Margin of Error	Statistical Significance*
District 1	57	4,562	90.73	2.60	a
District 2	29	3,062	87.75	4.66	a
District 3	18	1,892	87.90	5.52	a
<b>District 4</b>	<b>48</b>	<b>4,275</b>	<b>79.87</b>	<b>4.89</b>	<b>bc</b>
District 5	43	3,180	87.29	3.74	a
District 6	20	1,213	90.55	4.37	a
District 7	22	1,545	87.69	4.99	a
District 8	13	2,683	86.59	4.60	ab
<b>District 9</b>	<b>24</b>	<b>1,854</b>	<b>77.23</b>	<b>5.94</b>	<b>c</b>

\* Implementation percents having a different significance letter are significantly different at the 5 percent probability level.



# Arkansas Forestry Commission

## Education and Training

Technical BMP Training – Foresters and Loggers  
ATPA Logger Training





# Arkansas Forestry Commission

## Education and Training

### Non Technical Landowner Education





# Arkansas Forestry Commission

## Education and Training

### AFC "In-House" Technical Training



# Obstacles Encountered

- ✓ Personnel Change
- ✓ Equipment Malfunction
- ✓ Sample Size Issues
- ✓ Uncooperative Landowners

# Acknowledgements



**Arkansas Natural Resource Commission**



**Environmental Protection Agency,  
Region 6**



**Arkansas Timber Producers Association**



**Arkansas Forestry Association**



**School of Forest Resources**

# Arkansas Forestry Commission



Questions?

[www.forestry.state.ar.us](http://www.forestry.state.ar.us)

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