



# LOUISIANA DEPARTMENT OF AGRICULTURE & FORESTRY

MIKE STRAIN DVM

COMMISSIONER



## Best Management Practices Survey Results 2021

Agricultural &  
Environmental  
Sciences  
Suite 3000  
(225) 925-3770  
Fax: 925-3760

Agro-Consumer  
Services  
Suite 5000  
(225) 922-1341  
Fax: 923-4877

Animal Health  
& Food Safety  
Suite 4000  
(225) 925-3962  
Fax: 925-4103

Forestry  
Suite 6000  
(225) 925-4500  
Fax: 922-1356

Management  
& Finance  
Suite 1000  
(225) 922-1255  
Fax: 925-6012

Soil & Water  
Conservation  
Suite 7000  
(225) 922-1269  
Fax: 922-2577

This survey is done by the Louisiana Department of Agricultural and Forestry every three years. We strive to keep the site selection as random as possible while picking tracts to survey. In this report I explain how I determine the total amount of sites to survey in the State and how many in each parish. I also included the breakdown of how many sites were surveyed in each parish. If a parish is not included in this report, it is because there was not enough timber harvested in that parish to justify doing a survey. Finally, I have included a total breakdown of all the data collected in each category, a percent compliance for each category, and the total average.

To begin, I used the following formula from the USFS to determine how many sites had to be inspected:

$$N = \frac{4p(100 - p)}{M^2}$$

Where: N = # of sites to monitor

P = % of estimated BMP rate (85%)

M = margin of error (5%)

\*Using this formula, I determined that **204** sites needed to be inspected.

Using the Severance Tax Report, I determined the total amount of boardfeet harvested statewide. I divided this number by 204 which told me that for every 4.8 million boardfeet harvested, there needed to be one site inspected. Again, using the severance tax report, I took the breakdown of the harvest report for each parish and took the total amount harvested in each parish and divided that by 4.8 million which told me how many sites needed to be inspected in each parish. This number ranged from 0 to 18 sites.

The pilots found twice the number of sites needed in each parish to turn in to the foresters. The foresters then randomly picked the number of sites needed from this number. The total number of tracts chosen by pilots for foresters to randomly choose from was **408**. This number was used to determine a 95% confidence interval.

**Percent compliance based on a 95% confidence interval: 96.89% +/- 4.86%**

David Campbell  
Forestry Program Manager,  
Louisiana Department of Agriculture and Forestry  
Ph# 225-952-8009

**2021 BMP Survey**

**Number of BMP Surveys by District/Parish**

**District 1 (74 Surveys)**

Caddo (4)

Bossier (5)

Webster (6)

Claiborne (11)

Bienville (13)

Lincoln (2)

Jackson (14)

Union (10)

Ouachita (2)

Caldwell (7)

**District 2 (16 Surveys)**

Morehouse (1)

Catahoula (2)

La Salle (13)

**District 3 (57 Surveys)**

Desoto (6)

Sabine (18)

Natchitoches (10)

Winn (18)

Grant (3)

Red River (2)

**District 4 (43 Surveys)**

Vernon (12)

S. Rapides (8)

Beauregard (10)

Allen (8)

Calcasieu (2)

Evangeline (3)

**District 5 (0 Surveys)**

**District 6 (14 Surveys)**

East Feliciana (3)

St Helena (3)

Livingston (3)

Tangipahoa (2)

Washington (2)

St Tammany (1)

**Total Surveys: 204**

BMP MONITORING	Tracts Surveyed
<b>Silvicultural Activity:</b>	
Regeneration Cut - 84.80%	173
Thinning - 11.27%	23
Other - 3.92%	8
<b>Tract Size:</b>	
10-40 Acres - 20.10%	41
41-80 Acres - 31.86%	65
81-120 Acres - 17.16%	35
121-160 Acres - 15.20%	31
161 + Acres - 15.69%	32
<b>Ownership:</b>	
PNIF - 50.49%	103
Industry - 48.53%	99
Federal - 0%	0
State - 0.98%	2

### 3. Streamside Management Zone:

A. SMZ Width Established According to BMP Specifications	153 - YES	2 - NO	50 - N/A
	98.70%	1.30%	
B. Harvesting/Thinning with SMZ According BMP Specifications	147 - YES	4 - NO	53 - N/A
	97.35%	2.65%	
C. SMZ Integrity Preserved	150 - YES	3 - NO	51 - N/A
	98.04%	1.96%	
D. Stream Course Clear of Logging Debris	144 - YES	12 - NO	48 - N/A
	92.31%	7.69%	
E. SMZ Free of Roads and Landings	147 - YES	7 - NO	50 - N/A
	95.45%	4.55%	
F. Stream Free of Sediment Due to Silvicultural Activity	148 - YES	6 - NO	50 - N/A
	96.10%	3.90%	
G. Rutting Through Steams or Drains Avoided	153 - YES	3 - NO	48 - N/A
	98.08%	1.92%	
H. Hot Site Prep Fire Avoided in SMZ	57 - YES	0 - NO	147 - N/A
	100.00%	0.00%	
I. Blocking The Natural Flow of Water Avoided	146 - YES	8 - NO	50 - N/A
	94.81%	5.19%	
J. Stream Bank Integrity Preserved	150 - YES	3 - NO	51 - N/A
	98.04%	1.96%	

<b>Percent Compliance</b>	<b>96.89%</b>
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### 4. Stream Crossings

A. Ditches That Dump Into Streams Avoided	126 - YES	5 - NO	73 - N/A
	96.18%	3.81%	
B. Streams Crossing Properly Installed	123 - YES	3 - NO	78 - N/A
	97.62%	2.38%	
C. Number of Stream Crossing Minimized	126 - YES	0 - NO	78 - N/A
	100.00%	0.00%	
D. Stream or Drain Crossing at Right Angle Only	122 - YES	1 - NO	81 - N/A
	99.19%	0.81%	
E. Stream Crossing Stabilized During Use	121 - YES	2 - NO	81 - N/A
	98.37%	1.63%	

<b>Percent Compliance</b>	<b>98.27%</b>
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### 5. Permanent Roads

A. Road Respect Sensitive Areas	171 - YES	0 - NO	33 - N/A
	100.00%	0.00%	
B. Rutting is Not Excessive	172 - YES	4 - NO	28 - N/A
	97.73%	2.27%	
C. Roads Located Where Side Drainage Can Be Achieved	167 - YES	5 - NO	32 - N/A
	97.09%	2.91%	
D. Roads Wide Enough to Achieve Surface Drying	172 - YES	1 - NO	31 - N/A
	99.42%	0.58%	
E. Roads Reshaped and/Or Stabilized If Needed	153 - YES	16 - NO	35 - N/A
	90.53%	9.47%	
F. Roads Meet Grade Specifications	169 - YES	5 - NO	30 - N/A
	97.13%	2.87%	
G. Roads Are Well Drained with Appropriate Structures	152 - YES	8 - NO	44 - N/A
	95.00%	5.00%	
H. Side Ditches Do Not Dump Into Streams	152 - YES	4 - NO	48 - N/A
	97.44%	2.56%	
I. Flat No Grade Road Avoided if Possible	168 - YES	6 - NO	30 - N/A
	96.55%	3.45%	
J. Streambeds, Rocky Places, And Steep Slopes Avoided	164 - YES	0 - NO	40 - N/A
	100.00%	0.00%	
K. Potential Problems Soils Avoided	166 - YES	2 - NO	36 - N/A
	98.81%	1.19%	

<b>Percent Compliance</b>	<b>97.25%</b>
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## 6. Skid Trails/Temporary (Secondary) Roads

### A. Sensitive Areas Respected

198 - YES 2 - NO 4 - N/A  
99.00% 1.00%

### B. Majority of Skid Trail Grades Below 15 Percent

200 - YES 1 - NO 3 - N/A  
99.50% 0.50%

### C. Excessive Tract Rutting Area Does Not Exceed 25%

195 - YES 7 - NO 2 - N/A  
96.53% 3.47%

### D. Water Bars, Turnouts, and Other Water Control Structures

125 - YES 40 - NO 39 - N/A  
75.76% 24.24%

### E. Roads and Skid Trails are Stabilized

173 - YES 24 - NO 17 - N/A  
87.82% 12.18%

<b>Percent Compliance</b>	<b>91.72%</b>
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## 7. Site Preparation

### A. Sensitive Areas Respected

132 - YES 1 - NO 71 - N/A  
99.25% 0.25%

### B. Contour Followed

128 - YES 0 - NO 76 - N/A  
100.00% 0.00%

### C. SMZ Integrity Preserved

118 - YES 0 - NO 86 - N/A  
100.00% 0.00%

### D. Soil Disturbance Kept To A Minimum

132 - YES 5 - NO 67 - N/A  
96.35% 3.65%

### E. Excessive Soil Compaction Avoided

136 - YES 1 - NO 67 - N/A  
99.27% 0.73%

### F. Does It Appear That Chemicals Were Used to Label Specs

106 - YES 4 - NO 94 - N/A  
96.36% 3.64%

### G. Disturbance On Slope Minimized

133 - YES 2 - NO 69 - N/A  
98.52% 1.48%

### H. Water Diverted from Site Prep Area to Vegetated Surface

112 - YES 4 - NO 88 - N/A  
96.55% 3.45%

### I. Extremely Hot Burns Avoided

63 - YES 0 - NO 141 - N/A  
100.00% 0.00%

<b>Percent Compliance</b>	<b>98.48%</b>
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## 8. Landings

### A. Location Outside of SMZ

184 - YES 2 - NO 18 - N/A  
98.92% 1.08%

### B. Well-Drained Location

198 - YES 2 - NO 4 - N/A  
99.00% 1.00%

### C. Number and Size Minimized

201 - YES 0 - NO 3 - N/A  
100.00% 0.00%

### D. Sensitive Areas Respected

199 - YES 0 - NO 5 - N/A  
100.00% 0.00%

### E. Restored/Stabilized

175 - YES 19 - NO 10 - N/A  
90.21% 9.79%

<b>Percent Compliance</b>	<b>97.62%</b>
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## 9. Wetlands (Wetlands BMPs Are Mandatory Practices)

### A. Hydrology of Site Unaltered

78 - YES 3 - NO 123 - N/A  
96.30% 3.70%

### B. Roads, Drainage Structures Applied Properly

75 - YES 1 - NO 128 - N/A  
98.68% 1.32%

### C. Mandatory BMPs Followed If Indicated

76 - YES 1 - NO 127 - N/A  
98.70% 1.30%

<b>Percent Compliance</b>	<b>97.89%</b>
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## 10. Fireline Construction

### A. Fireline Erosion Controlled

36 - YES 3 - NO 165 - N/A  
92.31% 7.69%

### B. Majority of Fireline Constructed Around Slopes/Grades <10%

38 - YES 0 - NO 166 - N/A  
100.00% 0.00%

### C. Water Bars, Turnouts, & Other Water Control Structures Properly Installed

33 - YES 5 - NO 166 - N/A  
86.84% 13.16%

### D. Diversion Ditches Not Constructed At the Head of a Drain

34 - YES 0 - NO 170 - N/A  
100.00% 0.00%

### E. Firelines Not Constructed Down the Slope of Natural Gully

37 - YES 0 - NO 167 - N/A  
100.00% 0.00%

### F. SMZs Left Between the Fireline and Streams

29 - YES 0 - NO 175 - N/A  
100.00% 0.00%

### G. Avoid Constructing Firelines Into An SMZ

31 - YES 0 - NO 173 - N/A  
100.00% 0.00%

<b>Percent Compliance</b>	<b>97.02%</b>
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## **SUMMARY COMPLIANCE TOTALS**

<b>Streamside Management Zone:</b>	96.89%
<b>Stream Crossings:</b>	98.27%
<b>Permanent Roads:</b>	97.25%
<b>Skid Trails/Temporary(Secondary) Roads:</b>	91.72%
<b>Site Preparation:</b>	98.48%
<b>Landings:</b>	97.62%
<b>Wetlands:</b>	97.89%
<b>Fireline Construction:</b>	97.02%

**STATEWIDE TOTAL BMP COMPLIANCE: 96.89%**