



Forestry Best Management Practices for Water Quality
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Introduction

- Forests and Water Quality
- BMP Program
- Using BMP Field Manual
- Modifying BMPs

Water Resources in Wisconsin

- Over 12,600 rivers and streams flowing more than 84,000 miles
- More than 15,000 inland lakes
- Over 5 million acres of wetlands
- Sport-fishing generates over \$2.7 billion in business



Forest Resources in Wisconsin

- Cover over 16 million acres
- WI's timber industry employs over 52,700 people and generates over \$18.4 billion in forest products
- Contribute to the high quality of WI's water resources



Federal EPA Clean Water Act of 1972

- Later revisions include the specific activities of silviculture
- Control Non-Point Source Pollution to the “Maximum Extent Practical”
- This brings the development of BMPs



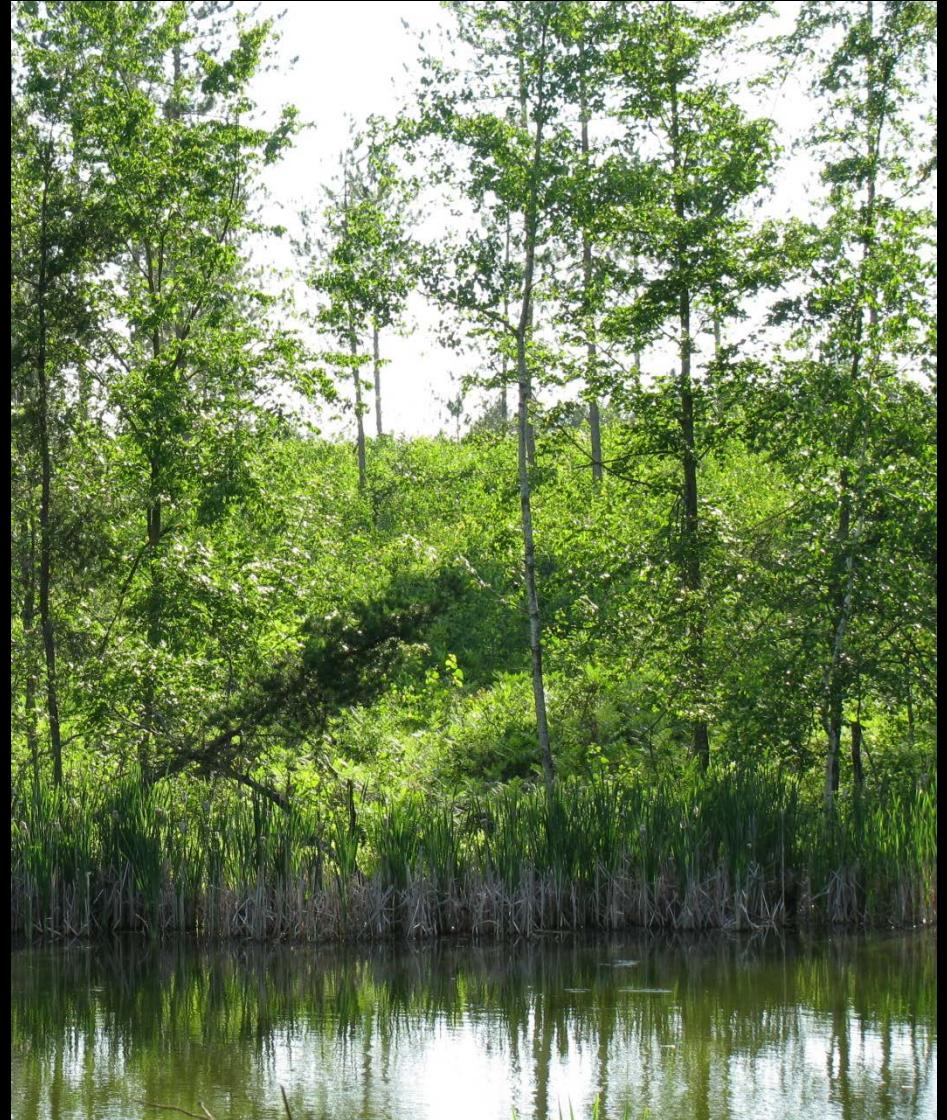
Wisconsin's BMP Program

- Required by federal legislation
- Early efforts started in 1990
- Formal program with monitoring, training, and publishing BMP FM in 1995
- Advisory Committee since 2001
- BMP FM revised in 2010



If BMPs Are Not Followed:

- Water flows may increase as tree cover is reduced in a watershed
- Cover is reduced, raising water temperatures and eliminating habitat



If BMPs Are Not Followed:

- Ability of soil to absorb water may be reduced with rutting and compaction
- Potential for erosion may be increased if soil is exposed









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BMP Monitoring

- BMPs are correctly used over 90% of the time
- When BMPs are used, water quality is protected over 99% of the time



BMP Monitoring

- When BMPs are not used, impacts to water quality are observed nearly 70% of the time



BMP Monitoring

Monitoring Categories

- Fuels
- Forest Roads
- Timber Harvesting
- Wetlands
- RMZs



BMP Monitoring

- Application
 - Were BMPs followed
- Effectiveness
 - Were the BMPs Effective



Forest Roads

- Poorly located, constructed, and maintained forest roads are the largest contributors of NPS pollution in forestry



















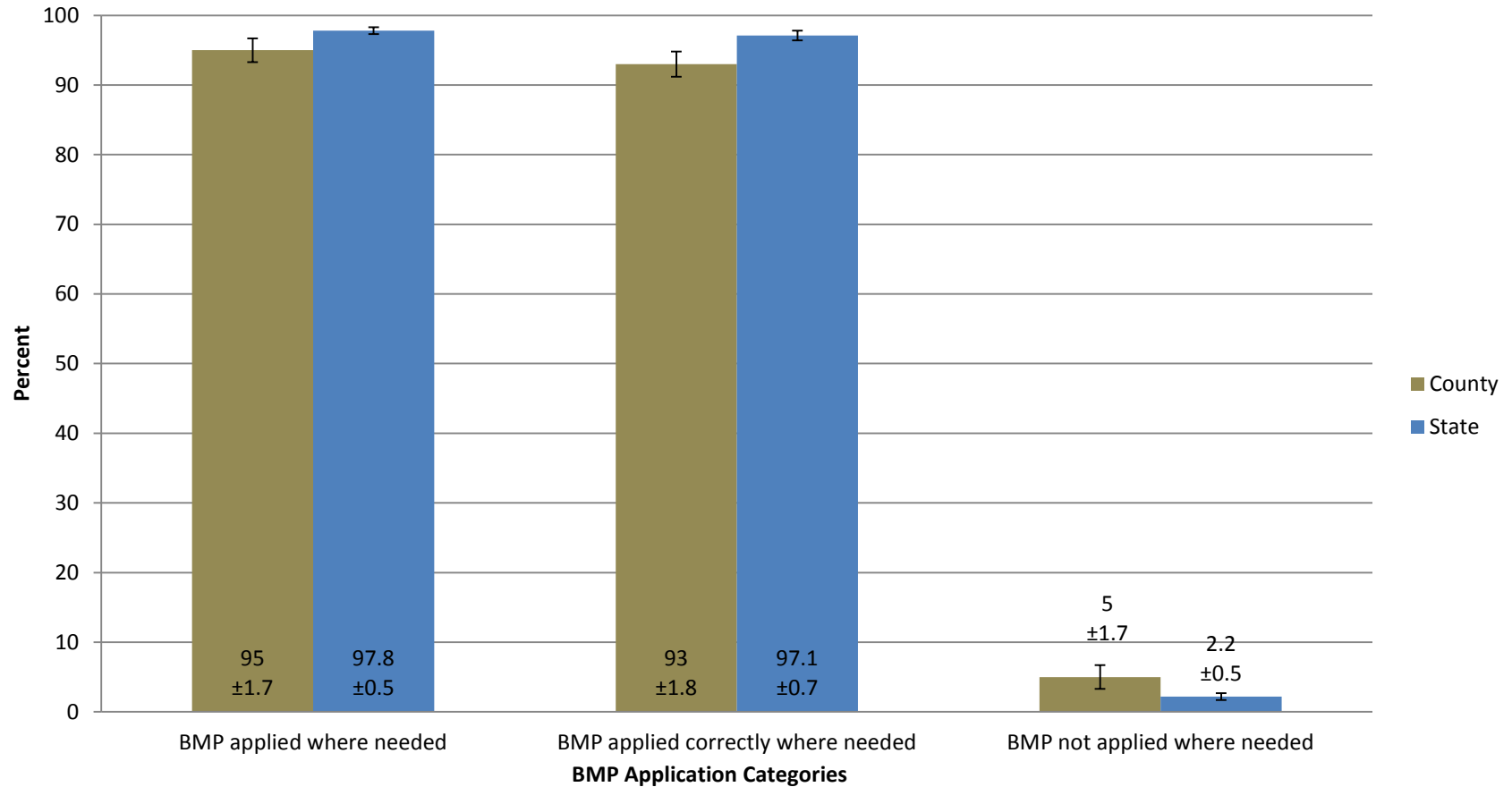
Current BMP Monitoring Results

2013 State and County Lands

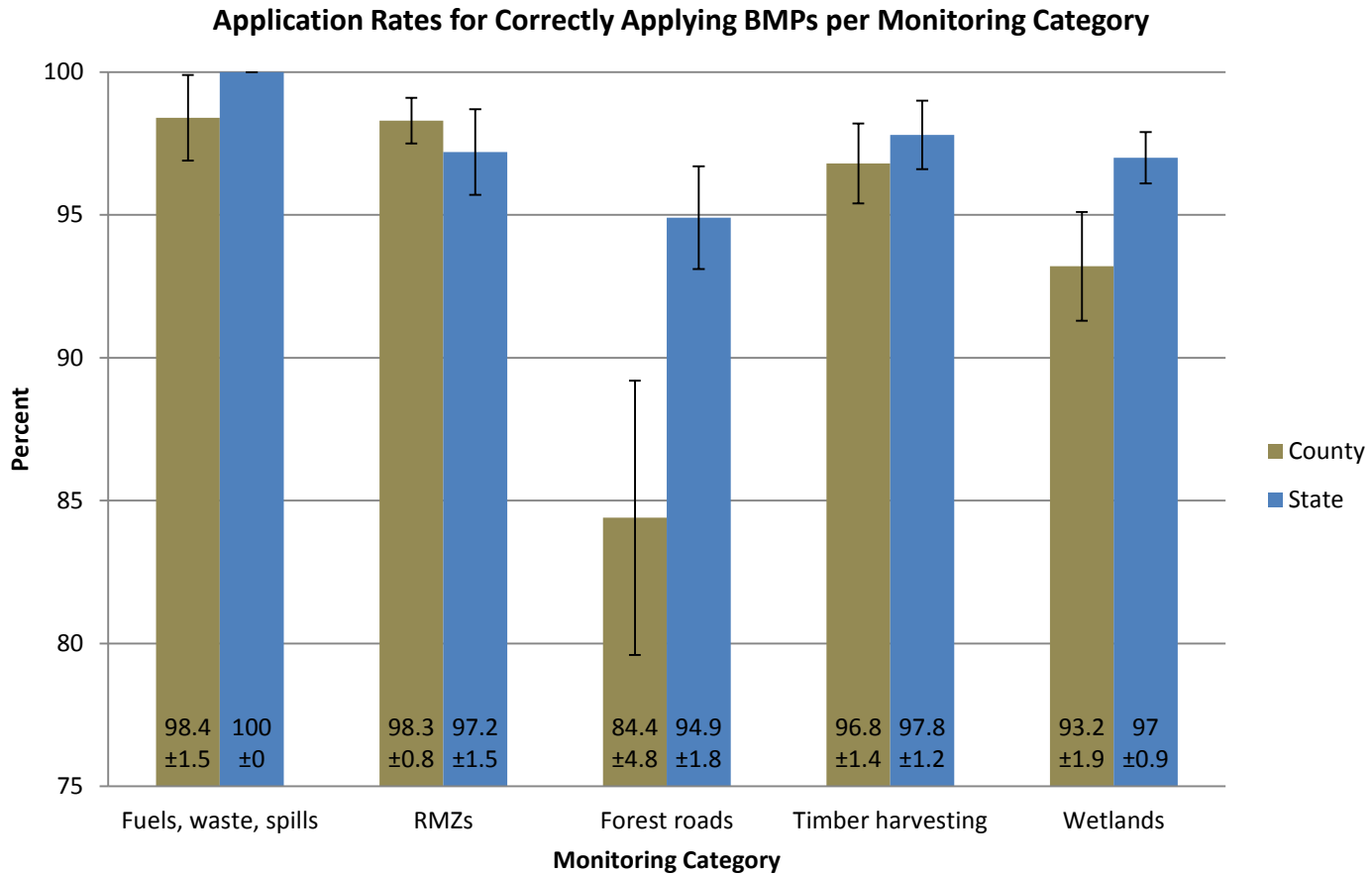
2014 Federal and Large Landholder
(formerly Industrial Forests)

2013 State and County Lands

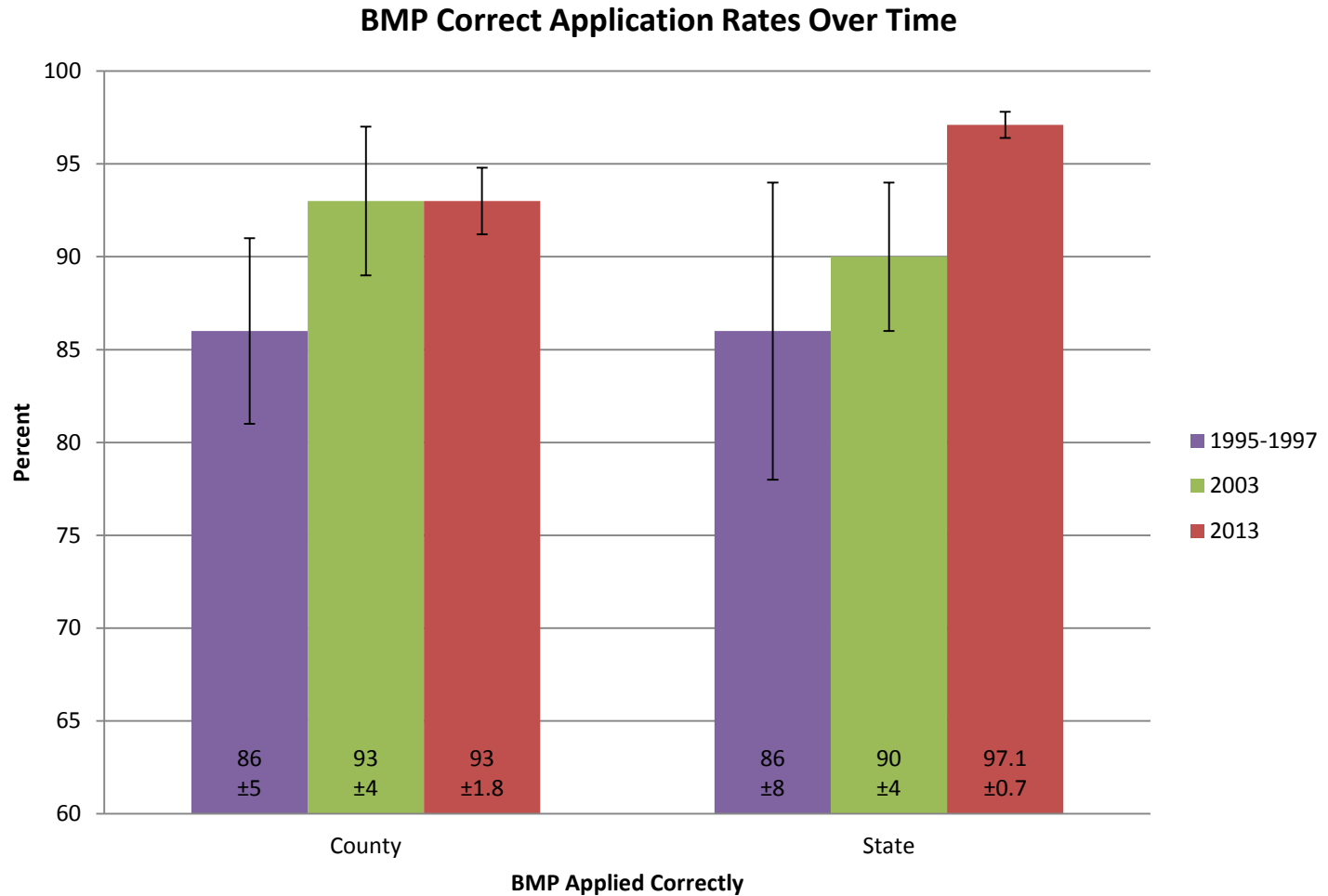
BMP Application Rates



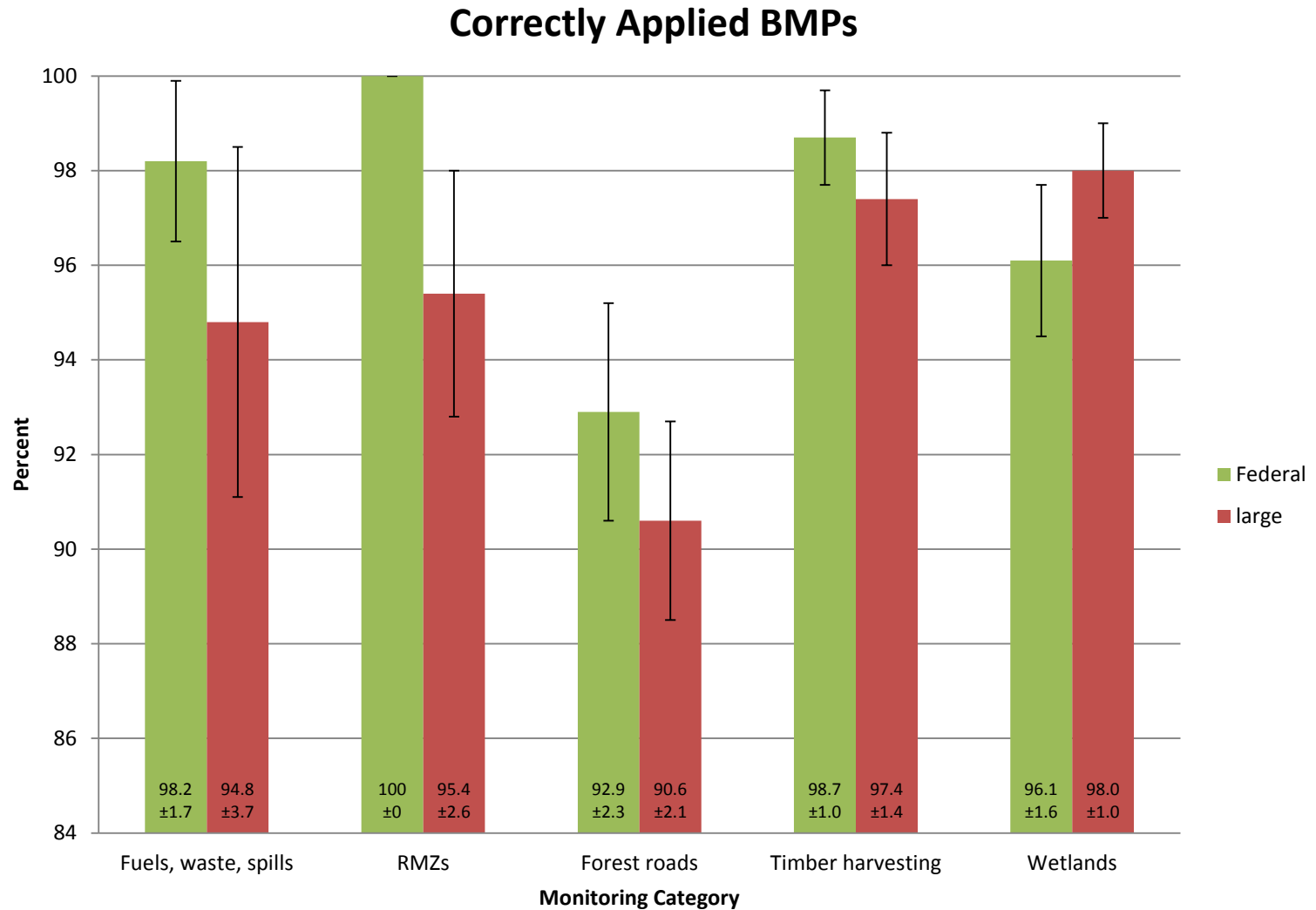
2013 State and County Land



2013 State and County Land

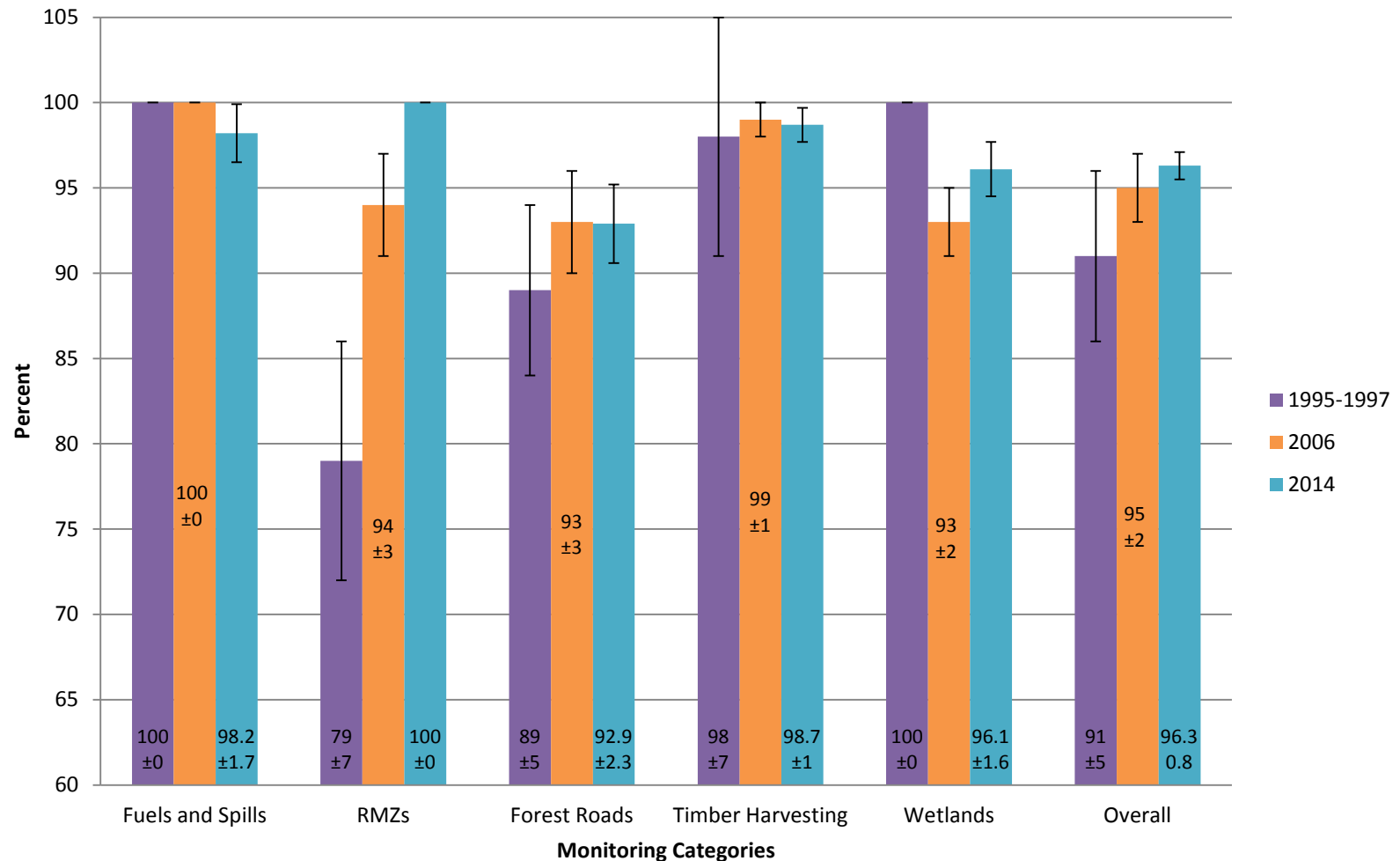


2014 Federal and Large Landholders



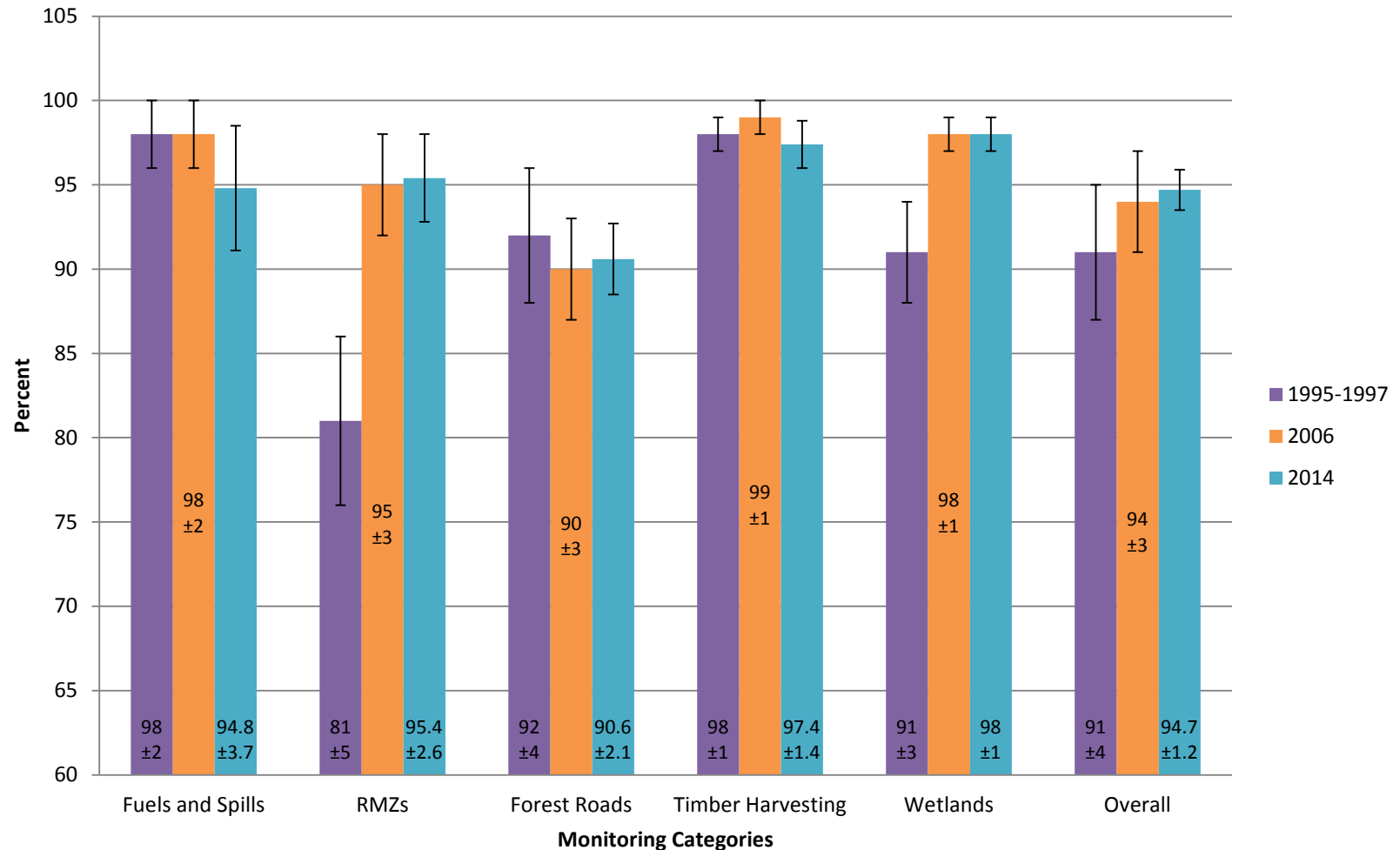
2014 Federal and Large Landholders

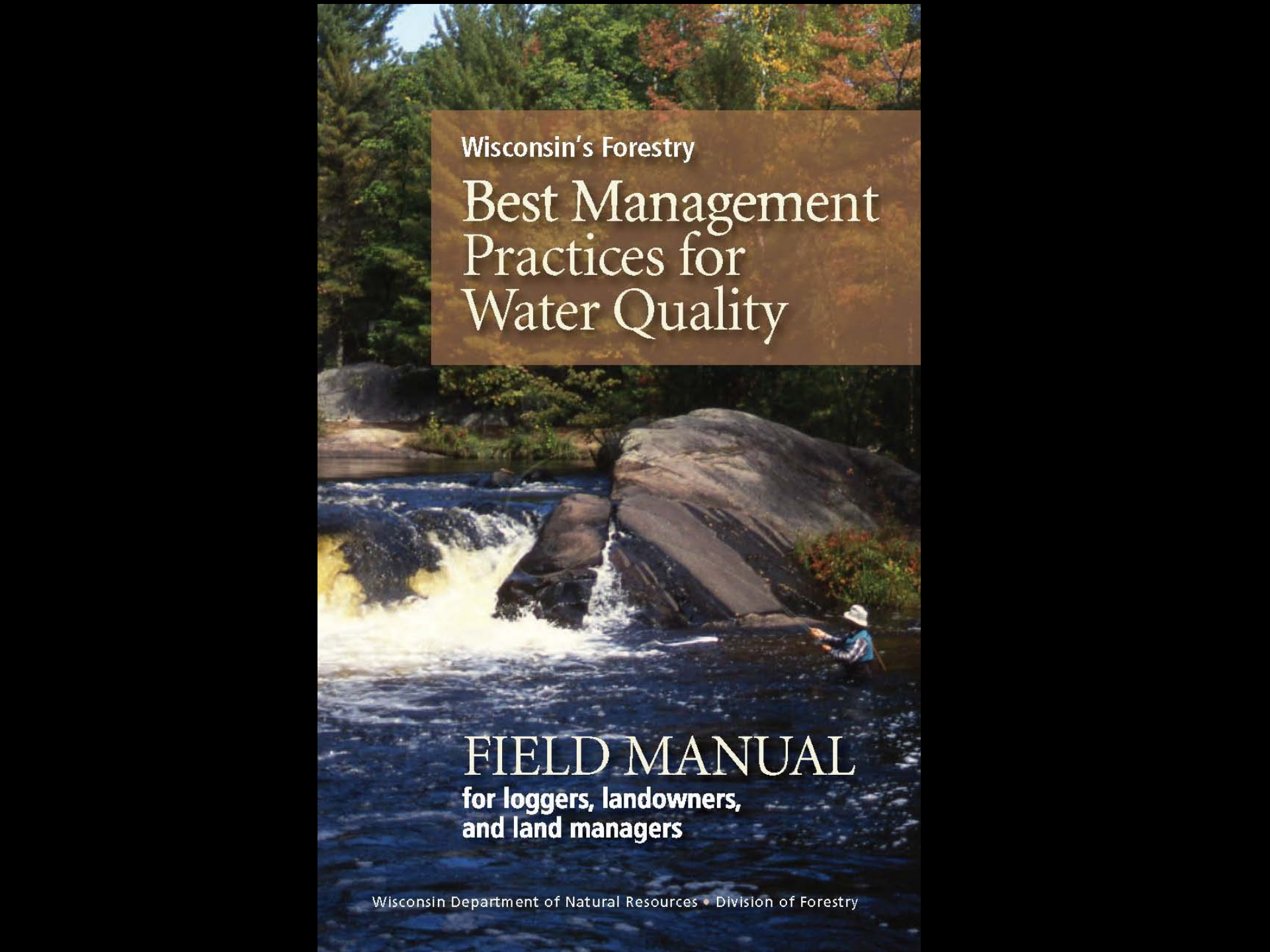
Application Rates for Federal Landowners in 2014 Compared to Past Years



2014 Federal and Large Landholders

Application Rates for Large Landowner in 2014 Compared to Past Years





Wisconsin's Forestry

Best Management Practices for Water Quality

FIELD MANUAL
for loggers, landowners,
and land managers

Wisconsin Department of Natural Resources • Division of Forestry

Any Questions?

