

| State                |                                   | Minnesota   |
|----------------------|-----------------------------------|---|
| BMP Manual           | BMP Manual Date                   | 2013  |
|                      | BMP Manual                        | <a href="http://www.frc.state.mn.us/documents/council/site-level/MFRC_Revised%20Forest%20Management%20Guidelines%20%282012%29.pdf">http://www.frc.state.mn.us/documents/council/site-level/MFRC_Revised%20Forest%20Management%20Guidelines%20%282012%29.pdf</a> |
| State BMP Regulation |                                   | Non-Regulatory  |
| BMP Monitoring       | BMP Monitoring                    | Yes   |
|                      | Most Recent Monitoring:           | 2011  |
|                      | Next Planned Monitoring:          | 2014  |
|                      | Agency(s) Involved in Monitoring: | Forestry  |
|                      | When Sites are Monitored          | Post-Harvest  |

|  |  |                           |       |
|--|--|---------------------------|-------|
| <b>State BMP Implementation Rate (%)</b> | <b>State BMP Implementation Rate (%)</b>                         | 83                        |       |
|  | <b>Year</b>  | 2011                      |       |
|  | <b>Timber Harvesting:</b>  | None Reported             |       |
|  | <b>Forest Roads:</b>   | 86                        |       |
|  | <b>Skid Trails:</b>  | None Reported             |       |
|  | <b>Log Landings:</b>   | 90                        |       |
|  | <b>Stream Crossings:</b>   | 91                        |       |
|  | <b>SMZ's:</b>  | 71                        |       |
|  | <b>Wetlands:</b>   | 87                        |       |
|  | <b>Reforestation:</b>  | None Reported             |       |
|  | <b>Mechanical Site Preparation:</b>                              | 92                        |       |
|  | <b>Chemical Site Preparation:</b>                                | 75                        |       |
|  | <b>Pesticide Applications:</b>                                   | 75                        |       |
|  | <b>Fertilizer Applications:</b>                                  | None Reported             |       |
|  | <b>Prescribed Burning:</b>                                       | 78                        |       |
|  | <b>Wildfire Suppression:</b>                                     | None Reported             |       |
|  | <b>Wildfire Rehabilitation:</b>                                  | None Reported             |       |
|  | <b>Public Lands:</b>   | None Reported             |       |
|  | <b>Agencies Involved in BMP Guideline and Policy Development</b> | <b>Timber Harvesting:</b> | Other |
|  |  | <b>Forest Roads:</b>      | Other |
| <b>Skid Trails:</b>                      |  | Other                     |       |
| <b>Log Landings:</b>                     |  | Other                     |       |
| <b>Stream Crossings:</b>                 |  | Other                     |       |
| <b>SMZ's:</b>                            |  | Other                     |       |
| <b>Wetlands:</b>                         |  | Other                     |       |
| <b>Reforestation:</b>                    |  | Forestry                  |       |
| <b>Mechanical Site Preparation:</b>      |  | Other                     |       |
| <b>Chemical Site Preparation:</b>        |  | Other                     |       |
| <b>Pesticide Applications:</b>           |  | Other                     |       |
| <b>Fertilizer Applications:</b>          |  | Other                     |       |
| <b>Prescribed Burning:</b>               |  | Other                     |       |
| <b>Wildfire Suppression:</b>             |  | Forestry                  |       |
| <b>Wildfire Rehabilitation:</b>          | Forestry   |                           |       |
| <b>Public Lands:</b>                     | None Reported  |                           |       |
| <b>Most Recent BMP Guidelines</b>        | <b>Timber Harvesting:</b>  | 2010 Revised              |       |

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|---|--|------------------------------------|
| <b>(Written or Revised)</b>   | <b>Forest Roads:</b>   | 2010 Revised                       |
|   | <b>Skid Trails:</b>  | 1995 Written                       |
|   | <b>Log Landings:</b>   | 1995 Written                       |
|   | <b>Stream Crossings:</b>                                     | 2010 Revised                       |
|   | <b>SMZ's:</b>  | 2010 Revised                       |
|   | <b>Wetlands:</b>   | 2010 Revised                       |
|   | <b>Reforestation:</b>  | 1995 Written                       |
|   | <b>Mechanical Site Preparation:</b>                          | 1995 Written                       |
|   | <b>Chemical Site Preparation:</b>                            | 1995 Written                       |
|   | <b>Pesticide Applications:</b>                               | 1995 Written                       |
|   | <b>Fertilizer Applications:</b>                              | 1995 Written                       |
|   | <b>Prescribed Burning:</b>                                   | 1995 Written                       |
|   | <b>Wildfire Suppression:</b>                                 | 1995 Written                       |
|   | <b>Wildfire Rehabilitation:</b>                              | 1995 Written                       |
| <b>Public Lands:</b>  | No Published BMPs  |                                    |
| <b>BMP Effectiveness Studies</b>  | <b>Previous Study:</b>                                       | Yes                                |
|   | <b>Current Study:</b>  | Yes                                |
|   | <b>Most Recent:</b>  | 2008                               |
|   | <b>Next Planned:</b>   | None Reported                      |
|   | <b>Agency(s)/Organization Involved:</b>                      | Academia, Other                    |
|   | <b>Focus Area(s):</b>  | Timber Harvest, Log Landings, SMZs |
| <b>FTEs (Full-Time Equivalent)<br/>Allocated to Forest Water<br/>Resources in State</b> | <b>Total FTEs Allocated to Water<br/>Resources in State:</b> | 1.1                                |
|   | <b>BMP Revision/ Publication</b>                             | 0.6                                |
|   | <b>BMP Compliance Monitoring</b>                             | 0.8                                |
|   | <b>BMP Effectiveness Monitoring</b>                          |                                    |
|   | <b>Logger Training</b>                                       | 0.15                               |
|   | <b>Logger Certification</b>                                  |                                    |
|   | <b>Forester Training</b>                                     | 0.15                               |
|   | <b>Forester Certification/Registration</b>                   |                                    |
|   | <b>Landowner Education</b>                                   |                                    |
|   | <b>Landowner Technical Assistance</b>                        |                                    |
|   | <b>Landowner Financial Assistance</b>                        |                                    |
| <b>Law Enforcement</b>  |  |                                    |

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|   | <b>Watershed Planning</b>                   |  |
|   | <b>Land use Planning</b>                    |  |
|   | <b>Other Research</b>                       |  |
|   | <b>Other Agency Training</b>                |  |
| <b>Legislation that Drives or Encourages BMP Development in the State</b> | <b>Federal Water Pollution Act:</b>         | Timber Harvesting, Wetland Protection, Stream Crossings, Site Preparation, Forest Protection |
|   | <b>State Forest Practices Act:</b>          |  |
|   | <b>State Anti-Sediment Law:</b>             |  |
|   | <b>State Silvicultural Law:</b>             |  |
|   | <b>State Non-Regulatory BMP Guidelines:</b> | Timber Harvesting, Wetland Protection, Stream Crossings, Site Preparation, Forest Protection |
|   | <b>Additional Legislation For:</b>          | Timber Harvesting, Wetland Protection, Stream Crossings, Site Preparation, Forest Protection |
| <b>Estimated Costs to Implement Forestry BMPs (Low, Medium, High)</b>     | <b>Agency:</b>                              | Minor  |
|   | <b>Landowner:</b>                           | Minor  |
|   | <b>Logger:</b>                              | Minor  |
| <b>Indicators of Forest Water Quality Using Standard Evaluations</b>      | <b>BMP Compliance:</b>                      | Yes  |
|   | <b>Erosion:</b>                             | Yes  |
|   | <b>Stream Sediment:</b>                     | Yes  |
|   | <b>Stream Temperature:</b>                  | No   |
|   | <b>Stream Oxygen:</b>                       | No   |
|   | <b>Stream pH:</b>                           | No   |
|   | <b>Stream Nutrient Levels:</b>              | No   |
|   | <b>Stream Chemicals/Pesticides:</b>         | No   |
|   | <b>Macroinvertebrates:</b>                  | No   |
|   | <b>Fish:</b>                                | No   |
|   | <b>Woody Debris:</b>                        | No   |
|   | <b>Fecal Bacteria:</b>                      | No   |
|   | <b>Other:</b>                               | No   |

|  |                                     |     |
|--|-------------------------------------|-----|
| <b>Indicators of Forest Water<br/>Quality Using Research<br/>Evaluations</b> | <b>BMP Compliance:</b>              | Yes |
|  | <b>Erosion:</b>                     | Yes |
|  | <b>Stream Sediment:</b>             | Yes |
|  | <b>Stream Temperature:</b>          | Yes |
|  | <b>Stream Oxygen:</b>               | Yes |
|  | <b>Stream pH:</b>                   | Yes |
|  | <b>Stream Nutrient Levels:</b>      | Yes |
|  | <b>Stream Chemicals/Pesticides:</b> | Yes |
|  | <b>Macroinvertebrates:</b>          | Yes |
|  | <b>Fish:</b>                        | Yes |
|  | <b>Woody Debris:</b>                | Yes |
|  | <b>Fecal Bacteria:</b>              | Yes |
|  | <b>Other:</b>                       | No  |