

# Montana DNR Forestry Division

## FORESTRY ASSISTANCE

Biomass Utilization

BMP Field Review Process

Fish Habitat and  
Road-Stream Crossings

Forest Pest Management

Forest Practices

Forest Stewardship

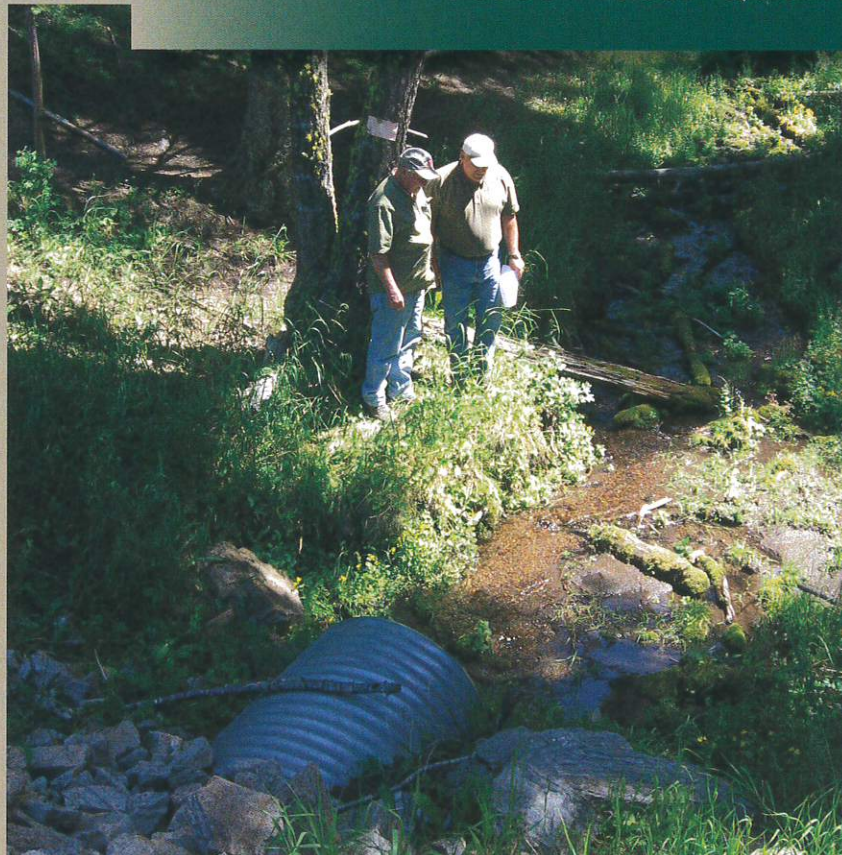
Montana Conservation  
Seedling Nursery

Urban and Community  
Forestry

# BMP Field Review Process



*Helping Forest Landowners to  
Manage their Forests  
and Protect Water Quality*



## Best Management Practices Field Review Process

Montana's Forestry Best Management Practices (BMPs) are voluntary practices designed to minimize non-point source pollution from timber harvest operations and associated activities. Non-point source pollution typically occurs when runoff carries pollutants—primarily sediment but sometimes hazardous substances like fuel or motor oil—from diffuse sources into water bodies. Minimizing the impacts of forest practices on water resources is important to long-term stewardship of Montana's forest lands, which include the headwaters for several major river basins and produce large quantities of high-quality water. This water nurtures some of the west's best fisheries and is used for irrigation, livestock, domestic, recreational, and industrial purposes.

Forestry BMPs first came into use in Montana in the 1970s, and have been developed for categories including timber harvest and site preparation, road construction, stream crossings, winter logging, reforestation, and hazardous substances. While not required by regulation, the use of BMPs has been widely accepted by the forest products industry and forest landowners in general.

The Montana Department of Natural Resources and Conservation (DNRC) is charged with monitoring the implementation and effectiveness of BMPs on private, state, and federal forestlands. The monitoring is led by the Montana DNRC Forestry Assistance Bureau, which evaluates the implementation and effectiveness of BMPs through a sample of recent harvest sites every two years. These



Montana's forest Best Management Practices are voluntary practices designed to protect water quality from non-point source pollution such as runoff containing sediment or hazardous substances.

### Goal

Private landowners become involved in the BMP field review process.

field reviews provide valuable information about the effectiveness of BMPs in protecting water quality, and also enable BMPs to be refined and improved as needed based on findings from the field. The data and analysis from the field reviews are published in a biennial report submitted to the Montana State Legislature.

Montana's use of voluntary BMPs has proven to be an effective tool in limiting non-point source pollution from forest harvest activities. When the first field review of BMPs was conducted in 1990, 78% of BMPs were properly implemented and 80% provided adequate protection of water resources. The 2016 field review found that 97% of BMPs were properly implemented and 99% provided adequate protection.

### BMP Field Review Objectives

- Determine if BMPs are being applied on timber harvest operations
- Evaluate the general effectiveness of BMPs in protecting soil and water resources
- Identify landowner educational opportunities.
- Provide information on the need to revise, clarify, or strength BMPs

The biennial field review process is important for creating educational opportunities and for fostering continued improvement of BMPs. The continued success of the field review program depends on landowners volunteering their recent timber harvest sites as potential sites for inclusion in the field review. Without this continued participation from private landowners, DNRC's ability to rate the effectiveness of BMPs will be reduced, which may lead to further regulation of Montana's Forest Practices.

## The Field Review Process

The field review process begins with the random selection from the pool of potential sites that will be visited. Field review sites are selected from recent timber harvest and timber management sites submitted by four land ownership groups: State lands (state), U.S. Forest Service/Bureau of Land Management lands (federal), private industrial lands, and non-industrial private forest lands. Review sites are randomly chosen based on general information provided by the landowners. The sites are distributed across the state based on harvest volumes for three regional areas from the previous year.

Field review team members bring a diversity of expertise and experience to the field review process. Each of the three teams in 2016 included a forester, a hydrologist, a fisheries biologist, a conservation group representative, a road engineer, a soil scientist, and a shared position of logging professional or representative of non-industrial private forest landowners. Before going into the field, team members participate in a training session designed to help them rate BMPs as consistently as possible during the actual site visits. For each BMP that is applicable to a site, the field review teams address two key questions. First, was the correct BMP applied to the correct specifications, the correct number of times, and in the correct locations. Second, how effective was the BMP in protecting soil and water resources.

Field review teams typically spend around two hours at each review site. Usually the landowner or a representative of the landowner briefs the team about the harvest project and BMPs used. Before entering the actual harvest site, the team decides which roads, harvest units, and new culvert installations to inspect. The team then walks the site as a group, reviews the implementation of BMPs, then gathers to determine the BMP ratings. After all the on-site reviews have been completed, results from all sites are compiled and analyzed. Findings and recommendations are presented in the report to the Legislature and available to the public.

### Montana Needs More Private Forestland Owners to Offer Field Review Sites

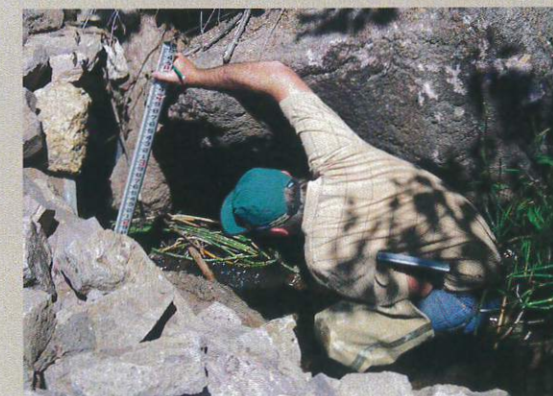
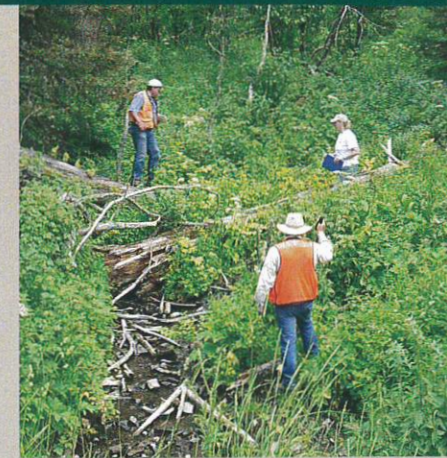
Offering your non-industrial private timber harvest site as a candidate for the pool of potential field review sites will contribute to the continued success of the BMP program. Selecting the review sites from a large pool of potential sites contributes to the quality and overall authenticity of the field review process.

Q: Will the ratings from my property be reported individually in DNRC's field review report?

A: No. BMP ratings are reported for each ownership class (state, federal, private industrial, or private non-industrial) as a group, not by individual sites. DNRC's report includes a list of the field review sites, but the only identification given for privately owned sites is the county they are located in.

Q: What if the field review team finds that a BMP has not been applied properly or has not been effective on my property?

A: There are no consequences for problems found during a field review. The information collected during the field review is a snapshot of what is happening in Montana and helps the DNRC improve its educational and operational practices. Findings are used to assess the overall effectiveness of BMPs across all sites in protecting water quality and to provide information needed to revise, clarify, or strengthen BMPs.



## Montana's Forestry BMPs Are Effective!

The results of over 25 years of monitoring BMP implementation and effectiveness are impressive. The 1990 field review found that BMPs were properly implemented 78% of the time. That number rose to 91% by the 2004 field review, reached 97% in 2004, and has remained high. The most recent field review, in 2016, found that BMPs were properly implemented 97% of the time and that 99% of practices provided adequate protection. These results reflect very

positively on forest landowners and the contractors they hire. High scores demonstrate that Montana's forestland owners are committed to harvesting timber using environmentally sound practices. Continued effective application of BMPs will also reduce any calls for moving BMPs into a legal, regulatory framework such as the Forest Practices Act.

### Comparison of BMP Field Review Results- All cycles – 1990 through 2016

Category	2016	2014	2012	2010	2008	2006	2004	2002	2000	1998	1996	1994	1992	1990
Application of practices that meet or exceed BMP requirements.	98%	97%	98%	97%	97%	96%	97%	96%	96%	94%	92%	91%	87%	78%
Application of high risk practices that meet or exceed BMP requirements.	93%	92%	93%	93%	90%	89%	89%	90%	92%	84%	81%	79%	72%	53%
Number of sites with at least one major departure in BMP application.	1 of 40 (2.5%)	2 of 42 (5%)	3 of 42 (7%)	5 of 45 (11%)	8 of 42 (19%)	4 of 44 (9%)	5 of 39 (13%)	10 of 43 (23%)	4 of 42 (10%)	8 of 47 (17%)	12 of 44 (27%)	17 of 46 (37%)	20 of 46 (43%)	27 of 44 (61%)
Average number of departures in BMP application, per site.	0.925	0.93	0.76	0.87	1.19	1.52	1.30	1.80	1.40	2.00	3.00	3.90	5.60	9.00
Percentage of practices providing adequate protection.	99%	98%	99%	98%	97%	97%	99%	97%	98%	96%	94%	93%	90%	80%
Percentage of high risk practices providing adequate protection.	96%	94%	96%	96%	91%	92%	95%	92%	93%	89%	86%	83%	77%	58%
Number of sites having at least one major / temporary or minor / prolonged impact.	1 of 40 (2.5%)	3 of 42 (7%)	5 of 42 (12%)	7 of 45 (16%)	8 of 42 (19%)	7 of 44 (16%)	10 of 39 (25%)	15 of 43 (35%)	9 of 42 (21%)	12 of 47 (26%)	15 of 44 (34%)	13 of 46 (28%)	17 of 46 (37%)	28 of 44 (64%)