

Program Evaluation

Forest Management

Trust Land Management Division, DNRC



ENVIRONMENTAL QUALITY COUNCIL

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Introduction

The Environmental Quality Council (EQC) is required to evaluate programs within the Department of Natural Resources and Conservation (DNRC) pursuant to 75-1-324, MCA. That law requires the EQC to “review and appraise the various programs and activities of the state agencies, in the light of the policy set forth in 75-1-103, for the purpose of determining the extent to which the programs and activities are contributing to the achievement of the policy and make recommendations to the governor and the legislature with respect to the policy.”

The policy reads as follows:

The legislature, recognizing the profound impact of human activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances, recognizing the critical importance of restoring and maintaining environmental quality to the overall welfare and human development, and further recognizing that governmental regulation may unnecessarily restrict the use and enjoyment of private property, declares that it is the continuing policy of the state of Montana, in cooperation with the federal government, local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which humans and nature can coexist in productive harmony, to recognize the right to use and enjoy private property free of undue government regulation, and to fulfill the social, economic, and other requirements of present and future generations of Montanans.

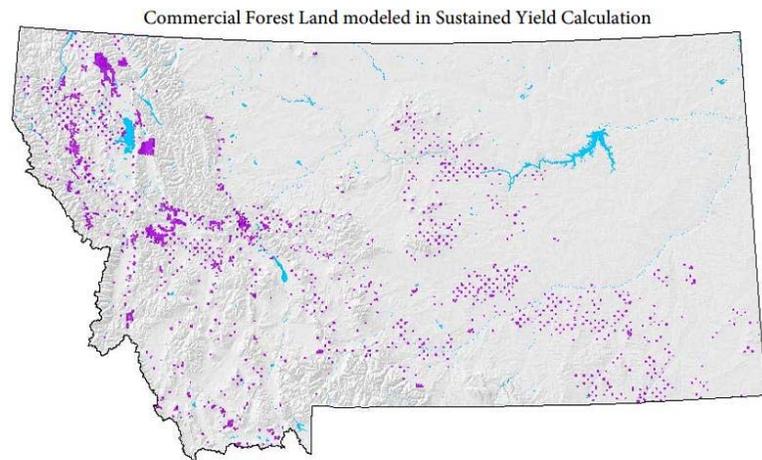
For each bureau within the Trust Land Management Division of the DNRC, the council allocated 68 hours of staff time.

Forest Management Bureau

The state owns about 5.2 million surface acres and 6.2 million subsurface mineral acres, the difference being the result of the sale of surface rights and the retention of mineral rights as required by law. Much of the land leased traces its history to the Enabling Act approved by Congress in 1889 granting sections 16 and 36 in every township within the state to Montana for the benefit of education. Subsequent acts also granted land for educational and state institutions.¹

The Land Board oversees the management of the trust lands as well as some other state-owned land. There are about 780,000 acres of forested trust land, most of which lies in western Montana and includes seven state forests. Statute notes, however, that any state land principally valuable for timber production or watershed production is classified as state forest.²

About 730,000 acres are considered commercial, which is defined as land capable of growing at least 20 cubic feet of timber volume per acre per year.³ Also subtracted from the total are lands that are not managed for timber production due to administrative uses (such as cabin sites) topography or other physical factors, lack of access, high development costs related to timber values, or as part of wildlife habitat and watershed protection. About 570,000 acres are considered manageable.



While forested trust lands account for 4 percent of the forest land statewide, timber sales from forested trust lands accounts for almost 18 percent of the volume of timber sold in the state.⁴

There are five areas within the Forest Management Bureau: Forest Product Sales, Forest Improvement, Forest Inventory, Forest Planning and Implementation, and Resource Management.

Forest Product Sales

Sustainable Yield

On those manageable acres of forested trust lands, the sale of timber and other products is the largest source of revenue. Between 1980 and 1992, the amount of board feet sold off state lands reached a high of 49.6 million board feet (mmbf) in the mid-1980s and steadily decreased to a low of 17 mmbf in the early 1990s. A 1992 legislative audit

¹ DNRC Trust Land Management Division [Annual Report, 2014](#), 77-2-304, MCA.

² 77-5-101, MCA.

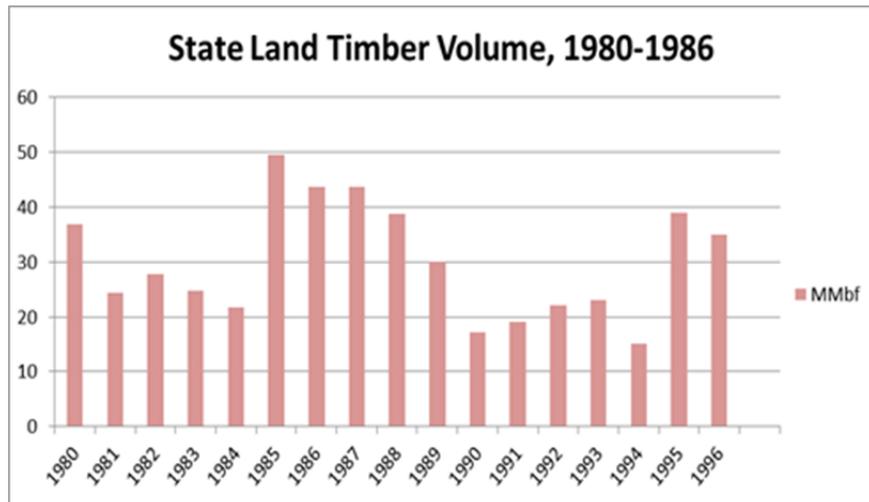
³ [Final Report](#), State Trust Lands Sustainable Yield Calculation, Sept. 10, 2015.

⁴ [Montana Trust Lands Annual Report](#), 2015.

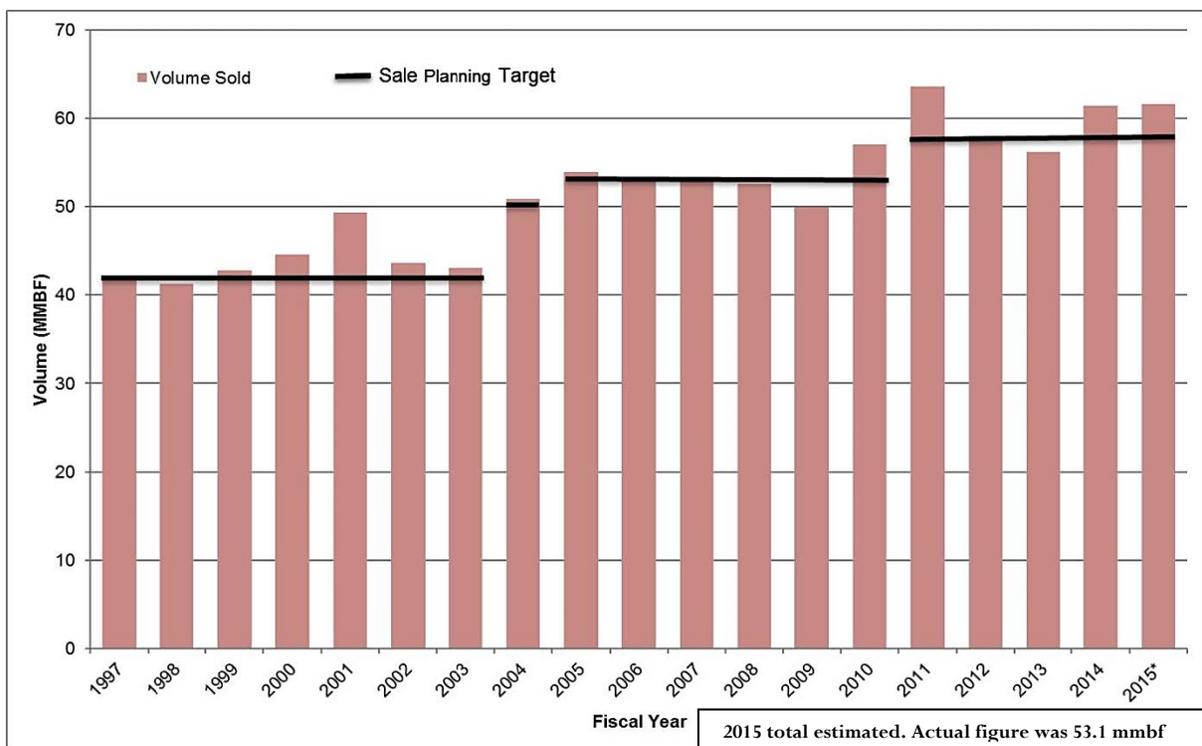
attributed the decline primarily to the agency's "efforts to minimize environmental impacts from sales of forest products on trust land."⁵

The decline put the annual yield well below the 50 mmbf deemed sustainable by the agency in 1983. However, the audit said the agency was following the principle of sustained yield, which takes into account the biological ability of the forest to regenerate. The audit noted that forest product industry officials said the state was the only manager of forested land harvesting below but relatively close to the sustained yield. Private industry had harvested over the sustained yield, and federal forests were well below.⁶

In 1995, the Legislature defined the term "sustainable yield" in law, required the agency to determine an annual sustainable yield, and set the sustainable yield as the



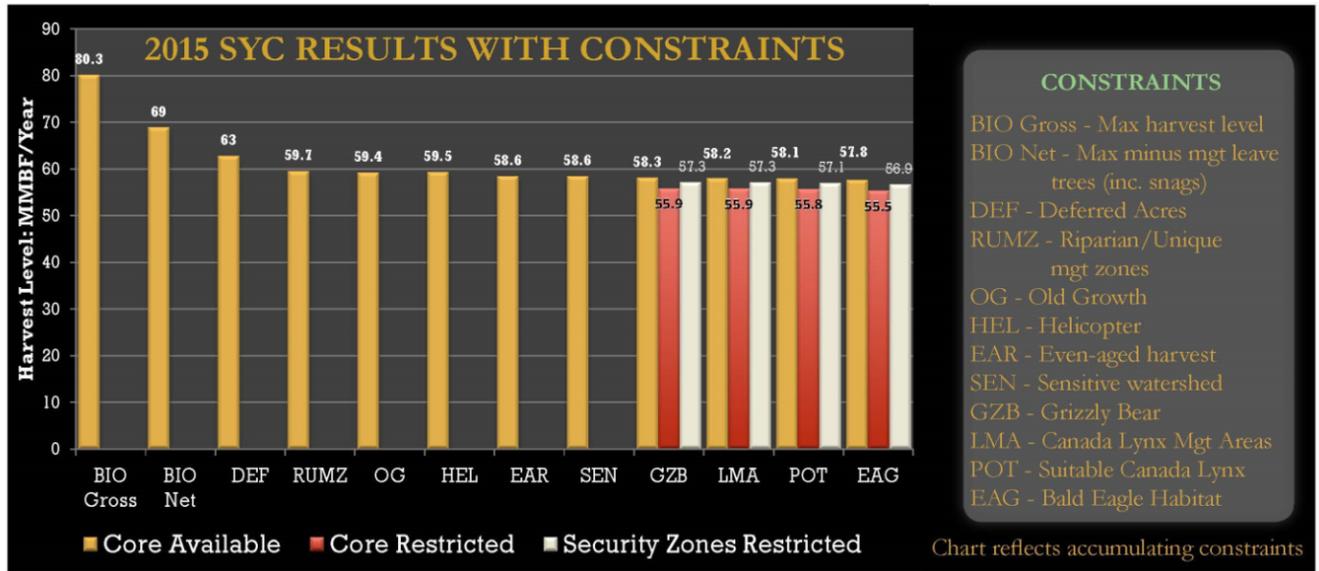
Year	Annual Sustainable Yield Calculation	Acres In Calculation
1983	50	399,700
1996	42.2	363,769
2004	53.2	430,784
2011	57.6	469,159
2015	56.9	570,510



⁵ Montana Legislative Audit Division, Management of Forested Trust Land, November 1992 performance audit report.

⁶ Ibid.

required amount of timber the state must sell in that year. A study conducted by a qualified third party using scientific principles would determine the annual sustainable yield. Until the study was completed, the law set the annual yield at between 45 mmbf and 55 mmbf, which is more than double what was harvested off state lands just a few years earlier.⁷ The study set the sustainable yield at 42.2 mmbf.



The Legislature required a new study in 2003, which increased the sustainable yield. In 2011, the Land Board required a another sustainable yield study in conjunction with a habitat conservation plan adopted that same year to address the needs of three species listed under the federal Endangered Species Act. The act allows states to develop habitat conservation plans to protect specific animals; in return, the federal government waives penalties if some of those animals are killed incidentally during legal activities. The plan covers grizzly bears, Canada lynx, and bull trout, which are listed species. It also addresses two species if they become listed: the westslope cutthroat trout and the Columbia redband trout. DNRC approved the plan in 2011, but litigation followed that was settled in 2015.

In 2013, the Legislature ordered another study because the state acquired about 67,000 acres of previously logged lands. It also required that the calculation be evaluated every 10 years.

The newly acquired acres were among a number of different items included in the most recent sustainable yield calculation, which was reported to the EQC in June 2015:⁸

- The study used more accurate and Montana-specific data.
- Growth and yield estimates are believed to be more accurate.

Deferred Acres	Total
<i>Lease Lots, Policy, Law</i>	5,499
<i>Low Productivity</i>	50,847
<i>Low Value - High Dev. Costs</i>	17,107
<i>No Legal Access</i>	25,994
<i>Timber Cons. License /Lease</i>	185
<i>Topography (steep, rocky, etc.)</i>	11,749
<i>Wet Areas</i>	4,725
Total	116,106

⁷ House Bill No. 201, 1995

⁸ EQC [minutes log](#) from June 3, 2015.

- Tree mortality from major fires, insects, and disease was not accounted for in the previous study.

The habitat conservation plan litigation affected the amount of timber sold in 2015. Prior to the suit, the agency expected to sell more than 60 mmbf however it closed the fiscal year at 53.1 mmbf. In August 2014, a judge found that the U.S. Fish and Wildlife Service did not demonstrate adequately that the DNRC mitigated impacts to grizzly bears to the maximum extent practicable in the plan. That order halted two timber sales completely and four timber sales partially. In October 2015, the parties settled, the injunction lifted, and the sales will go forward.

Timber Sale Process

Timber sales and management activities are implemented by individual DNRC offices throughout the state. Foresters in each land office nominate projects based on fieldwork, inventories, personal knowledge of treatment needs, and salvage needs as necessitated by natural disturbances, such as fire or insect mortality. Each land office maintains a 3-year listing of proposed timber sales.⁹

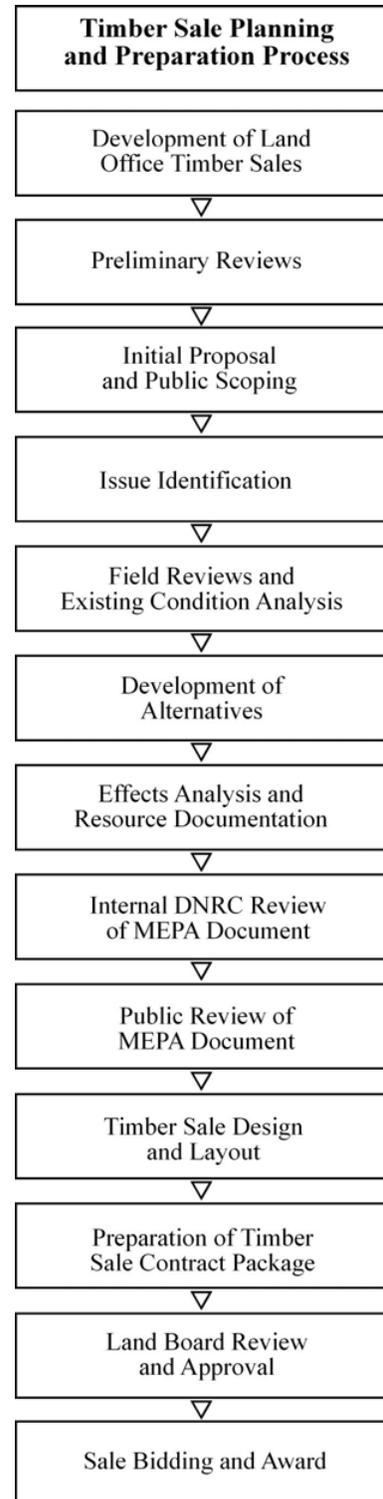
Timber sales are subject to a Montana Environmental Policy Act (MEPA) review and must be approved by the Land Board. Sales of more than 100,000 board feet must be advertised in a newspaper in the county of the sale for at least 30 days, during which time the agency can take sealed bids.¹⁰

However, there are exceptions where MEPA review is not required. Up to 1 mmbf may be sold with 10 days' notice of bidding in case of emergency due to fire, insect, fungus, parasite, or wind; to address forest health concerns; or to take advantage of access granted by an adjoining landowner. If the timber sale is to take advantage of access and there is only one potential buyer with access, the department may negotiate for full market value without bidding.¹¹

Most sales are calculated with the stumpage method. Bidders submit what they would pay per ton. The state is paid based on how many tons of timber are harvested. The law does allow for lump sum sales, where the state is paid in a lump sum for the estimated timber, regardless of how many trees are cut. The purchaser is required to furnish a bond of at least 5 percent of the estimated value of the timber sold, the amount of which would cover the potential loss to the state if the harvest is not completed.¹²

Salvage Timber

Dead or dying trees, or timber threatened by insects, disease, fire, or wind, may be sold as salvage. The department is charged with trying to harvest dead



⁹ [Habitat Conservation Plan Final EIS](#), volume 1, chapter 2, September 2010.

¹⁰ 77-5-201, MCA.

¹¹ Ibid. The statute notes, however, that if the sole access is totally controlled by a potential purchaser the department must seek a permanent, reciprocal access.

¹² 77-5-202 MCA.

and dying timber before substantial decay and loss of value occurs, but the program cannot take precedence over the sale of green timber.¹³

Since 2004, about 23,200 acres of commercial forested trust land have burned. DNRC allowed salvage logging on 8,700 acres, removing 31.5 mmbf of timber. Also since 2004, more than 81,000 acres were affected by mountain pine beetle and other insects. Salvage harvesting on almost 20,000 acres netted 83.8 mmbf.¹⁴

According to the bureau, most of these sales are competitively bid.

Timber Conservation License

In 1999, the Legislature passed House Bill 485 which established a timber conservation license.¹⁵

At the time, there was concern that opponents to timber sales could purchase a conservation license for a property within the timber sale, thereby preventing it from being logged. The agency director said three conservation licenses had been issued in areas of proposed timber sales. The concern, he said, was that the conservation easement proposal would not be made until well into the timber sale process.¹⁶

Under the law and the rules adopted to implement it, the request for a timber conservation license must be made no later than 60 days after the sale announcement. If the timber conservation bid is accepted as the winning bid, the minimum bond is 5 percent of the deferred stumpage value. The license holder must also pay the forest improvement fee.¹⁷

The agency has issued one timber conservation license since the law was passed. The license is for .81 acre in the Flathead area.

Commercial Permits

Montana residents may request a commercial timber permit at commercial rates but without advertising for up to 100,000 board feet for green timber. In case of emergency salvage, the department may issue the permit for up to 500,000 board feet.¹⁸

Commercial permits require bonding. The law also provides that the sales are categorical exclusions under MEPA, meaning the sales satisfy requirements set by the department to ensure no significant impact to the human environment. The department is authorized to, and does require, further review or can limit permits if it finds repeated sales may cumulatively affect an area. The agency may not issue repeated permits if there is an attempt to avoid advertising and competition.¹⁹

The bureau sells about 50 of these permits a year. Since 1992, \$10.7 million in revenue has come from commercial permits.

¹³ 77-5-207, MCA.

¹⁴ [Final Report](#), State Trust Lands Sustainable Yield Calculation, Sept. 10, 2015, p.#27

¹⁵ [House Bill 485](#), 1999; 77-5-208, MCA.

¹⁶ [Minutes](#) from House Natural Resources Committee, Feb. 10, 1999.

¹⁷ [36.11.453](#), ARM.

¹⁸ 77-5-212, MCA.

¹⁹ Ibid.

Contract Harvesting

The 2005 Legislature killed a proposal to allow contract harvesting, a process in which the state would contract directly with logging firms to harvest timber. The state would then sell the timber to forest product companies. In a standard timber sale, the buyer of the trees pays for the trees harvested and then sells the logs.

Though the proposal failed in 2005, the EQC studied concept the following interim. The EQC found that contract harvesting could increase revenue and provide another option for harvesting in environmentally sensitive areas. The EQC recommended legislation that allowed contract harvesting of up to 10 percent of the sustainable yield.²⁰

In 2007, the Legislature created a contract harvesting program. It allows the department to solicit bids and to contract with a firm or individual awarded the bid to:

- perform all necessary work to harvest and process trees into merchantable forest products;
- sort trees pursuant to contract specifications and department use standards; and
- transport and deliver the products to forest product purchasers.

The department can then sell the forest products to one or more forest product purchasers through competitive bidding.²¹

Since the program's inception, five contract harvest sales have been completed. The bureau conducted an internal program review in 2014, which concluded that contract sales to date have not made more money than a standard timber sale but that, with more experiences, the potential exists for more revenue and better forest management.

Contract Harvest Project	Fiscal Year	Acres	Area	Unit	Sawlogs (Mbf)	Gross Value	Contract Costs	Net Value
Moran Cyclone	2015	123	NWLO	Stillwater	1,959	\$908,347	\$420,702	\$487,645
Schoolhouse	2013	87	NWLO	Libby	1,376	\$443,249	\$274,923	\$168,326
North Fork Valley Creek	2012	250	NWLO	Stillwater	1,435	\$454,207	\$251,985	\$202,222
Butcher Stewart	2012	147	NWLO	Stillwater	842	\$246,132	\$125,772	\$120,361
Two Sheep	2010	88	NWLO	Plains	809	\$220,770	\$130,304	\$90,466
Total		695			6,421	\$2,272,705	\$1,203,686	\$1,069,020

Forest Improvement

State law has long allowed the Land Board to collect a forest improvement fee as part of the full market value of the wood. Forest improvement fees may be used for:²²

²⁰ [White Paper for HJR 33](#), 2006.

²¹ [Senate Bill 25](#), 2007.

- disposing of logging slash;
- acquiring access and maintaining roads necessary for timber harvesting on state lands;
- reforesting, thinning, and otherwise improving the condition and income potential of forested state lands; and
- complying with legal requirements for timber harvesting.

Among other things, the fees are used for prescribed burning, seed collection, seedling production, erosion control, and culvert placement. The funds are also used to collect and analyze the forest inventory through the development and maintenance of a geographic information system database.²³

Over the last two years the program planted about 400,000 seedlings.

Trust	Amount
Common Schools	\$ 773,885
Montana State University – Second Grant	57,624
Montana Tech	27,285
State Normal School	36,820
School for the Deaf and Blind	19,442
State Reform School	6,969
Public Buildings	246,174
Total	\$1,168,199

The forest improvement program is authorized to spend about \$1.35 million annually from the forest improvement account. The fee calculation is related to that spending goal. The formula takes into account the sustainable yield objective for each land office and can be adjusted through the year if the fee is under or over the spending goal. Although the fee is authorized in statute, the formula is not articulated in law or rule. The fees have not changed since 2012.

Prior to 2009, forest improvement fees were collected and credited to the department. Legislative audits noted the department was unable to demonstrate that forest improvement fees and other costs were reasonable costs incurred in perpetuating the purpose of each trust. In 2009, the DNRC requested Senate Bill 65, which addressed these

Land Office(s)	4/28/2003	8/19/2005	9/14/2007	10/1/2008	2/24/2009	1/13/2012
NWLO	\$66.50	\$19.50	\$27.30	\$31.90	\$39.24	\$25.13
SWLO	\$47.70	\$16.77	\$22.75	\$24.48	\$31.31	\$22.72
CLO	\$15.50	\$8.39	\$11.75	\$12.09	\$16.47	\$8.19
ELO/NELO/SLO	\$3.00	\$3.00	\$3.00	\$4.00	\$4.00	\$2.00

concerns and others. The forest improvement fee is deducted from each timber sale. In other words, the forest improvement fee does not go directly to the trust beneficiaries. But the 2009 law established the forest improvement account and required that the fees be accounted for by trust.²⁴

Forest Inventory

The program collects and analyzes timber data to plan for sales, environmental analyses, and other activities.²⁵

²² 77-5-204, MCA.

²³ [Habitat Conservation Plan Final EIS](#), volume1, chapter 2, September 2010.

²⁴ [Senate Bill 65](#), 2009

Forest Planning and Implementation

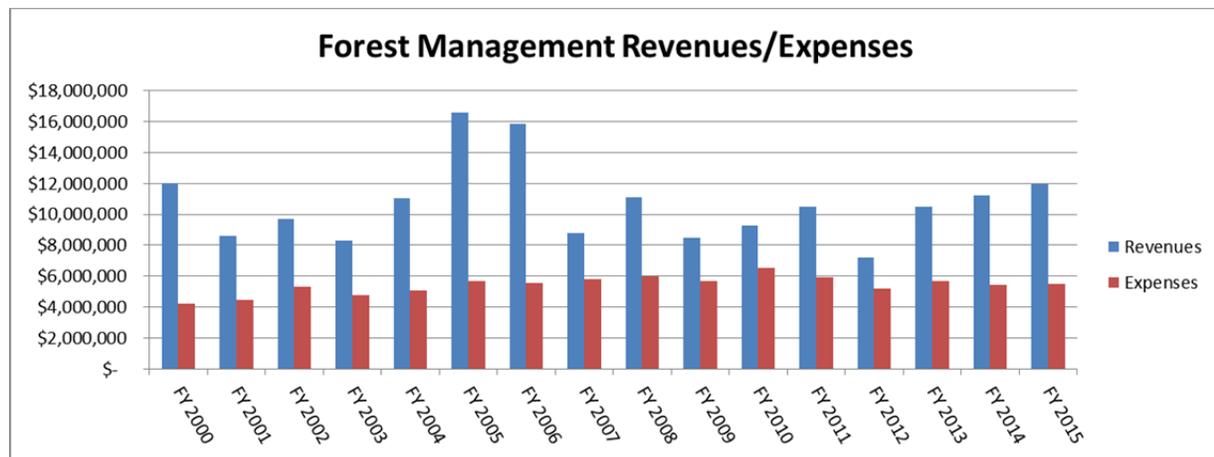
The program provides technical assistance in the areas of forest planning, regulatory compliance, and documentation required by the Montana Environmental Policy Act and provides training and guidance documents. Staff also maintain and monitor the state forest land management plan and the administrative rules.

Forest Resource Management

This program provides technical assistance in the areas of hydrology, soils, geology, fisheries, wildlife, plants, road engineering, and grazing. Assistance includes field reviews, project and MEPA analysis, drafting recommendations and mitigation measures, and monitoring activities on forested trust lands.

Fiscal Overview

The Forest Management Bureau has 56 FTE with an annual budget of almost \$6.2 million.²⁶ About \$3.7 million goes toward personal services and \$2.4 million is for operating expenses.



Enforcement

According to the DNRC, the Forest Management Bureau is usually tracking about 50 active timber sales at one time. Bureau staff inspect timber sale sites several times throughout the process to monitor compliance with contracts. In the last 2 years, no contracts for timber sales or forest management, and no timber permits were terminated for noncompliance with regulations.²⁸

The agency reports one violation of the Streamside Management Zone law over the past 2 years. However, the violation was attributed to a DNRC forester misinterpreting the law and enforcing it incorrectly.²⁹

The Forestry Division of the DNRC evaluates

Practice ²⁷	DNRC	Federal	Industry	NIPF	Totals
BMP Application	99%	94%	98%	98%	97%
BMP Effectiveness	99%	96%	98%	99%	98%
SMZ Application	96%	100%	100%	95%	98%
SMZ Effectiveness	98%	100%	100%	99%	99%

²⁵ [Habitat Conservation Plan Final EIS](#), volume1, chapter 2, September 2010.

²⁶ Actual expenditures are closer to \$5.8 million because of limited contract harvesting, which is budgeted for \$400,000.

²⁷ Montana Forestry Best Management Practice 2014 Monitoring Report, [Executive Summary](#).

²⁸ DNRC Enforcement and Compliance Report, 2016.

²⁹ Ibid.

best management practices and forest practices alongside streams for both public and private entities. In the agency's most recent report from 2014, projects on DNRC forested lands met or exceeded the best management practices 99.3 percent of the time, a better score than sites inspected on federal, industry, and nonindustry private land.³⁰

³⁰ Montana Forestry Best Management Practices 2014 Monitoring Report, [Executive Summary](#).