



# Montana State Trust Lands Return on Assets FY 2016

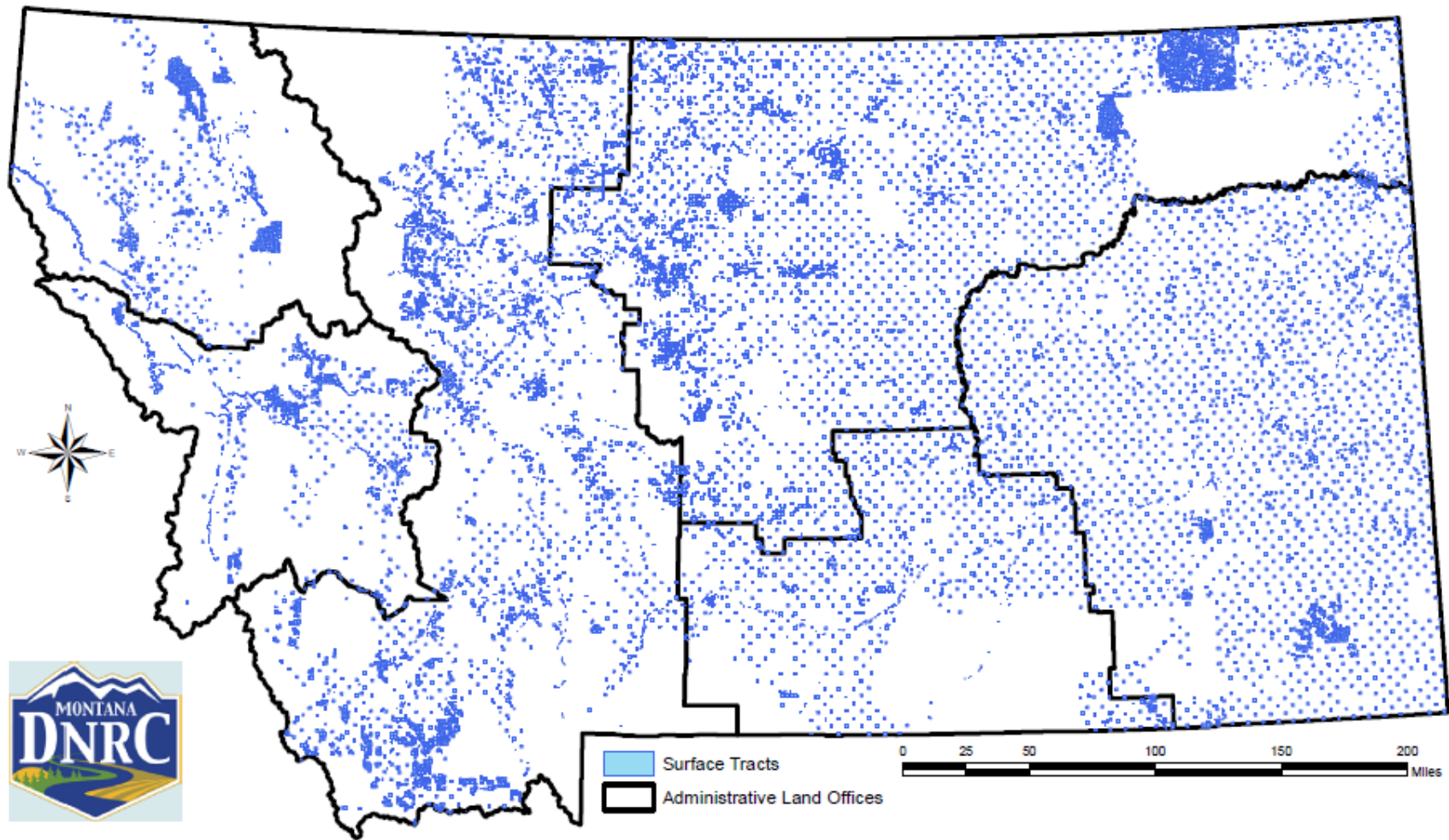
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## Trust Lands Management Division Mission

Manage the State of Montana's trust land resources to produce revenues for the trust beneficiaries while considering environmental factors and protecting the future income-generating capacity of the land.

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## Preface

This *Return on Assets Report* is an annual publication from the Trust Lands Management Division (TLMD) of the Department of Natural Resources and Conservation (DNRC) detailing the earnings and business trends of state trust land and mineral management. This edition of the *Return on Assets Report* covers fiscal year 2016 (FY 2016), which began July 1, 2015 and ended June 30, 2016.

The *Return on Assets Report* is three sections which examine return on assets for each trust; land management program performance; and classified forest lands returns as required by law, see (MCA 77-1-223) and (MCA 15-44-103).

The *Return on Assets Report* is made available with specific accounting limitations. This report is not an official income or cash flow statement. Asset values and returns are estimated based on the best available data, revenues and expenses may vary from those reported in DNRC's *Annual Report* due to the inclusion or exclusion of specific accounts. Returns reported are income returns which do not account for year-over-year changes in asset values. Finally, unless otherwise noted, dollar values throughout the report are expressed in nominal terms.

## Markets

Montana state trust lands are, principally, working lands. These lands are held in trust for the perpetual yield of revenues to support Montana's public education institutions. The majority of business transactions on school trust lands are the result of derived demand for land and resources in open markets. For example, grazing land must be leased by private ranching operations as part of their business operation to raise and sell livestock. Grazing land rental value is thus derived from and directly connected to the supply and demand for U.S. livestock. Changes in consumer preferences for beef (i.e. changes in the direct demand for beef) could affect the rental value and contracting opportunity on school trust lands.

Though most business generated by the school trust lands occurs in traditional industries (i.e. commercial forest products, livestock grazing, irrigated and dry agriculture, energy and mineral resource development, and real estate development) there are a few alternative revenue streams generated from: recreation, ecosystem services and technology related industries. For both the traditional and emerging business revenue streams, future opportunities for revenue center around land use and depend on local, national and global economic conditions and market trends.

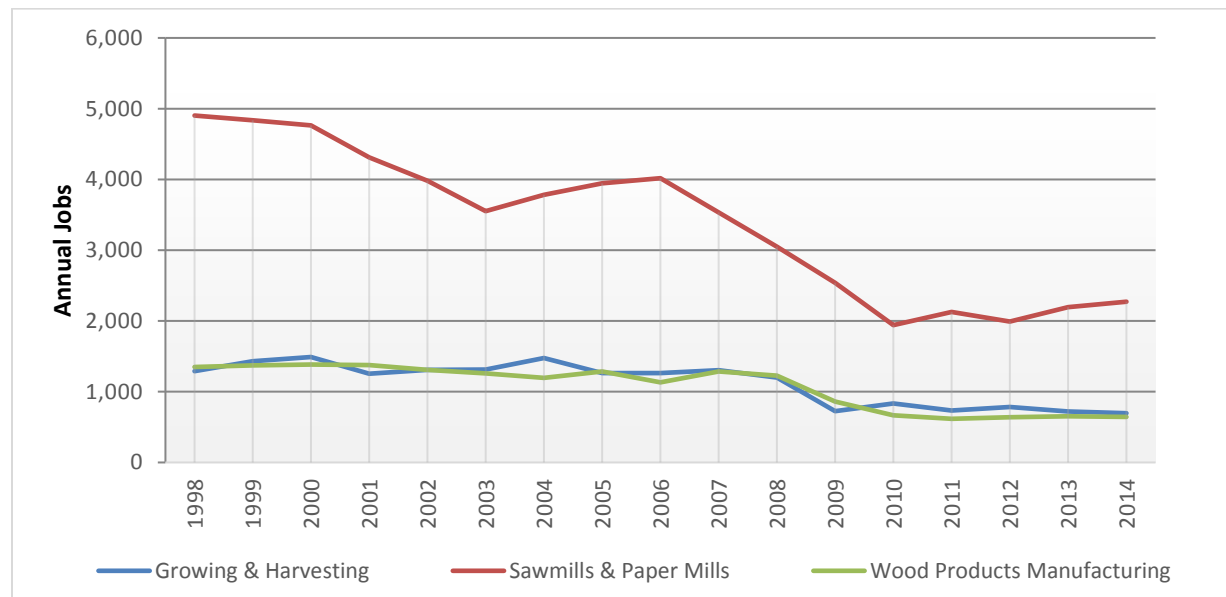
In this section, data on these related market trends associated with state trust land business are shared.

## Timber and Forest Products

Indicators for timber and forest products industry health in Montana include private sector employment, forest product prices, and quantities of timber harvested and sold from various land ownerships. Demand for timber and subsequent timber contract prices are derived ultimately from consumer demand for lumber and other finished forest products.

In Montana, where a large number of rural economies are supported by logging services and forest products manufacturing, it's important to observe industry trends from private employment standpoint. **Figure 1** shows statewide industry employment trends with an approximate fifty percent decline in total employment from 1998 to 2014. From a historic perspective, sawmills, paper mills, and other forest product manufacturing has lost a tremendous amount of invested capital, due to a multitude of external reasons. Some of the impacts to the industry have included: local supply shortages, international trade agreements, and shocks to lumber prices resulting from financial sector securitization excess and the 2008-2012 mortgage crisis and housing recession.

**Figure 1. Montana Forestry and Forest Product Private Employment**

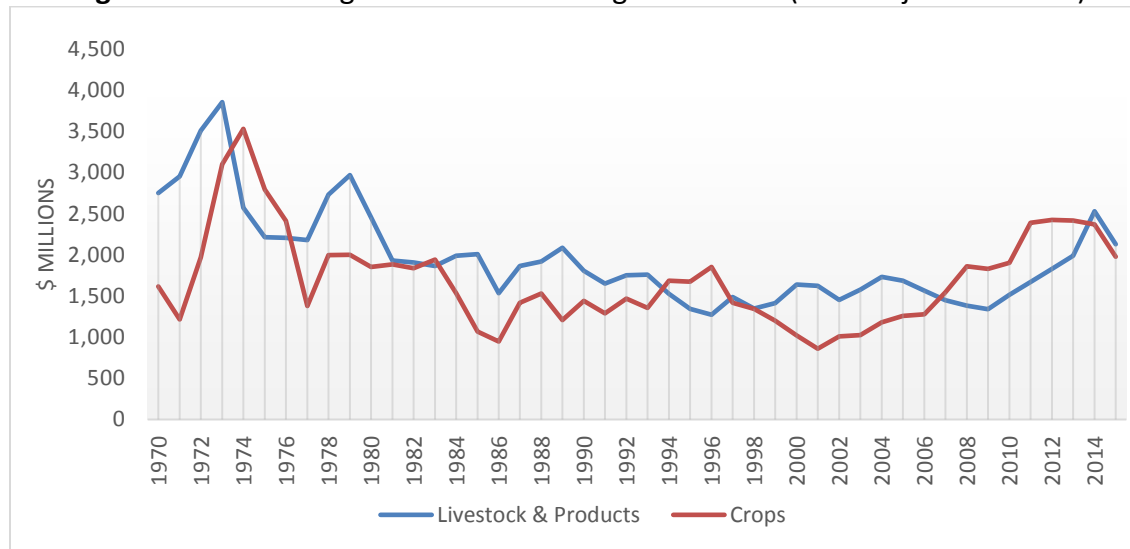


## Agriculture and Grazing

Indicators for agriculture and livestock grazing industry health in Montana include private sector employment, crop and livestock prices, farm production quantities, and gross farm sales. Demand for agriculture and range land and subsequent land lease prices are derived ultimately from consumer demand for crops, and food, including meat.

Montana’s agriculture sector is vast, and provides a high percentage of jobs in many rural communities across the state. Additionally, Montana’s agriculture production is tracked by USDA, and other entities. For a quick look at industry trends, **Figure 2** shows inflation adjusted gross agriculture product across Montana. Sales have dropped in recent years, but have not departed from historic variation.

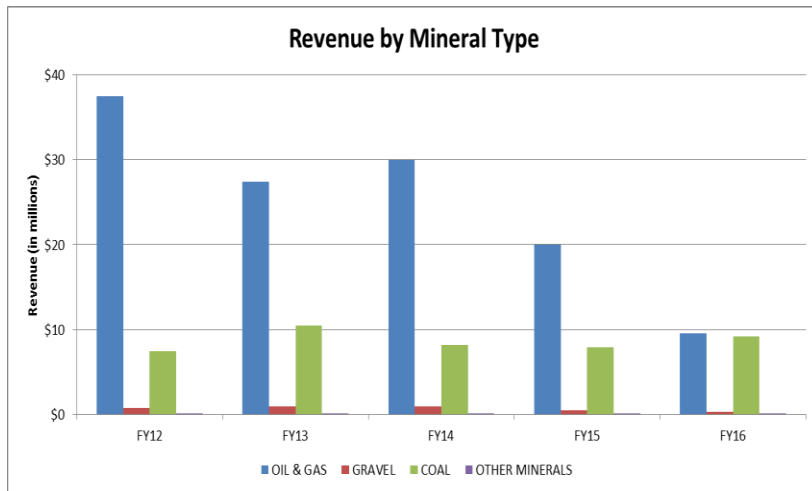
**Figure 2.** Montana Agriculture and Grazing Gross Sales (2015 adjusted dollars)



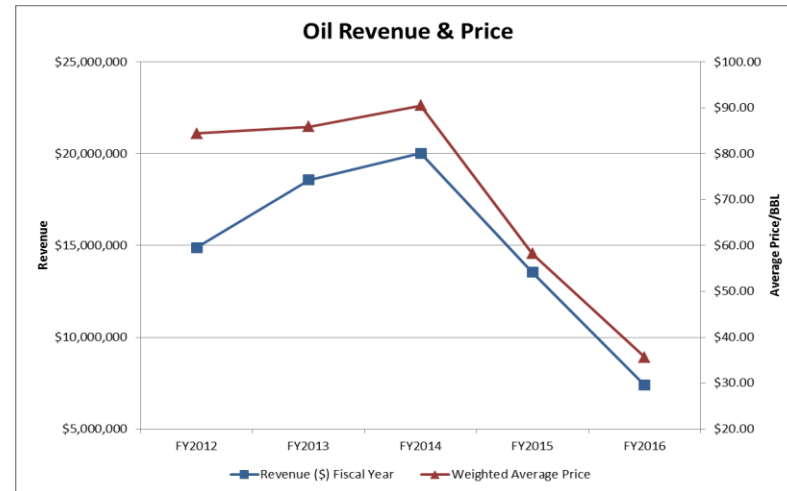
## Minerals

The Minerals Management Bureau is responsible for leasing, permitting and managing approximately 1,900 oil and gas, coal and other mineral agreements on nearly 760 thousand acres of the 6.2 million acres of school trust mineral rights throughout Montana. Most revenue generated by the Minerals Program comes from oil and coal markets, as depicted in **Figure 3**. In **Figure 4**, the oil supply glut can be observed as sharply reduced prices and domestic production, which in turn impacted trust mineral revenues in recent fiscal years. Oil royalties are the largest revenue source in the Minerals Program, followed by coal.

**Figure 3.** Minerals Management Gross Revenues by Mineral Type (FY 2012-2016)



**Figure 4.** Minerals Management Oil Revenues and Market Price (FY 2012-2016)



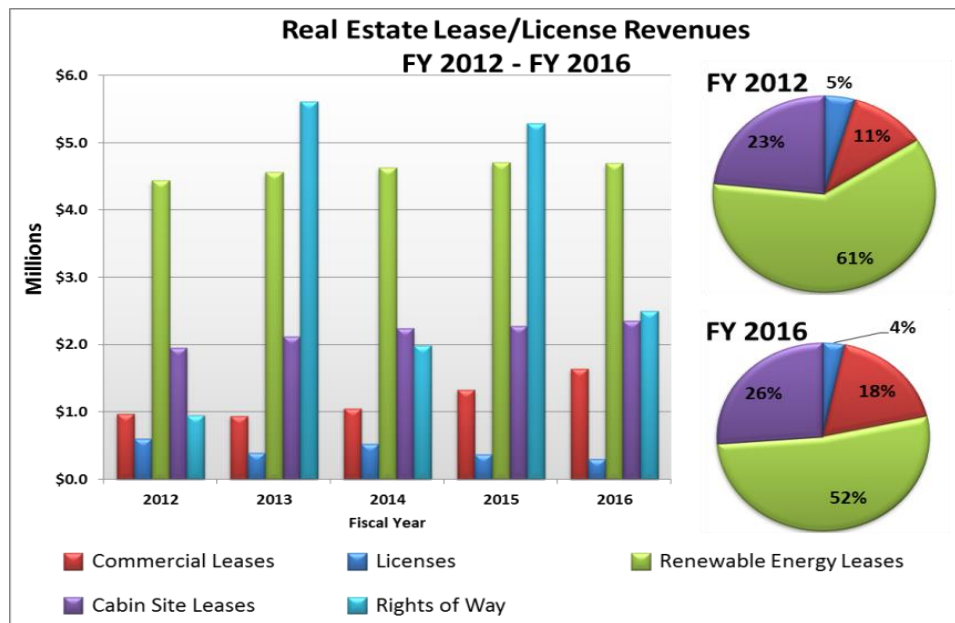


## Real Estate

Less than one percent of statewide surface ownership is classified Other, designating properties under lease or development for real estate purposes. The primary categories of leasing revenue within the Real Estate Program are driven by residential home site and cabin site leasing, and commercial leasing for a variety of purposes. Revenues from Trust Lands real estate leasing activities grew again in FY 2016, as shown in **Figure 5**. While both commercial and residential leasing revenues continue to show growth, renewable energy lease revenue dropped slightly in FY 2016, primarily due to a large hydro power lease payment tied to the CPI. In terms of return on operating costs, the hydro power lease still consistently produces more than half of the real estate lease revenue and requires very little administrative work by the real estate staff.

The pie charts inset in **Figure 5** show how revenues from commercial leasing and residential leasing are showing stronger annual growth than renewable energy leasing or licensing revenues through FY 2016.

**Figure 5.** Real Estate Management Gross Revenues by Type (FY 2012-2016)



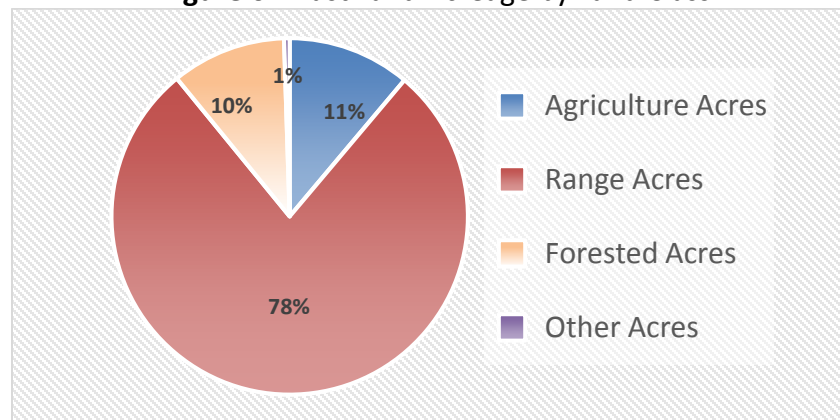
Rights of Way revenues have also been a significant portion of Real Estate revenues. These are more difficult to forecast, as they are largely driven by outside requests. Many counties are still working through the historic road right of way process, and new access agreements in support of other property sales, exchanges, and developments will likely continue to bring in revenues over future years.

## State Trust Performance

Montana state trust surface and mineral rights total 5.2 million surface acres and 6.2 million subsurface acres, respectively. **Figure 6** highlights the approximately 78 percent of trust surface acres that are classified as grazing lands, which are located primarily east of the continental divide. The remaining acres are classified as agriculture and forested lands, at 10 and 11 percent of total surface ownership, respectively. Finally, less than one percent of the trust portfolio surface acreage is designated for developed real estate business activities including residential, commercial, community, and conservation properties.

These multi-category lands represent the bulk of school trust assets, the remaining assets are fixed investments in commercial and government bonds. Land asset values, which are important for benchmarking the financial performance of trust land business over time, are largely estimated. The exception to this is when transaction evidence is available to trust land managers. Since 2003, land banking legislation (MCA 77-2-361-367) has legally permitted a limited number of state trust parcels to be exchanged, bought or sold through careful provisions. While operating to improve income generation, accessibility, and other parallel land management objectives, the Land Banking Program also produces data on the value of a limited number of trust surface parcels. These data, in combination with USDA National Agriculture Statistics Service (NASS), help support the evaluation of aggregated asset values. Finally, mineral rights are excluded from valuation estimates in this report, because mineral estate rights are permanently reserved assets of the State (MCA 77-2-304) and cannot be sold, except by a rental and royalty basis as provided by law.

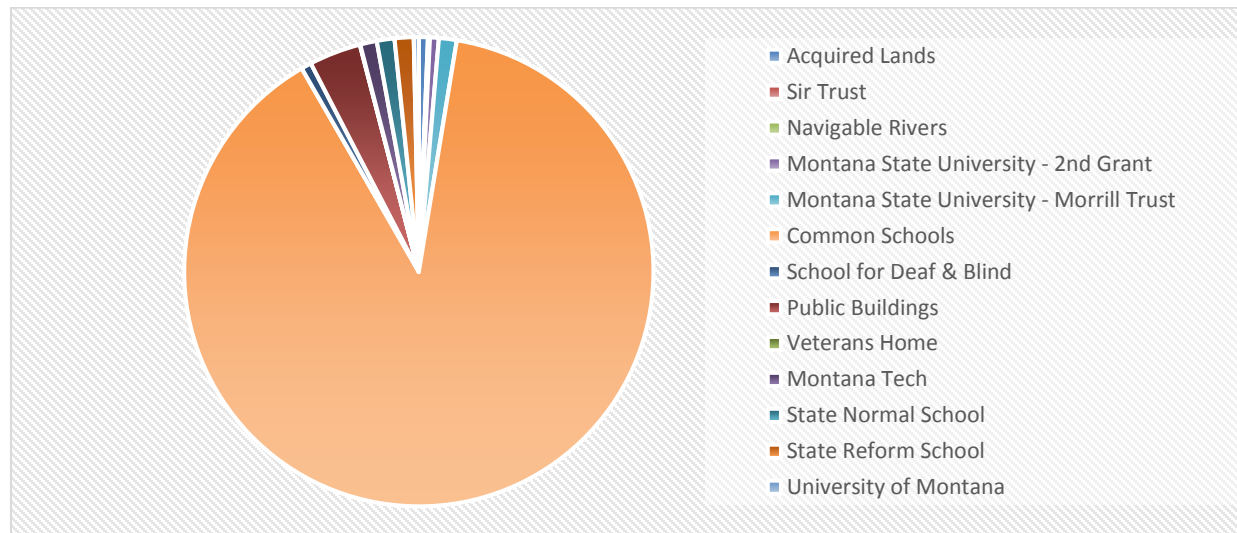
**Figure 6. Trust Land Acreage by Land Class**



To better understand the diversity of ownership in the school trust portfolio, **Figure 7** and **Table 1** share the percentage and total acreage of surface ownership represented by the various trust beneficiaries, respectively. The largest single trust is Common Schools which owns over 90 percent, or 4.6 million acres of all school trust land in Montana. The remainder of school trusts make up a small portion of the total business volume and surface ownership of the trust portfolio. Ownership percentages can shift over time, depending on sales and acquisitions resulting from land banking and exchanges. Such occurrences would typically reflect changes in acreage, rather than asset book values, due to requirements to exchange land of par values.

In the central columns of **Table 1**, existing surface ownership details are provided. In the far-right columns, mineral estate ownership details are shown in the right most column. Overall, a very small portion of mineral acreages will ever be developed.

**Figure 7. Trust Land Acreage by Trust Ownership**



**Table 1.** Surface and Subsurface Estate Rights by Trust Ownership and Land Classification (TLMS surveyed in January 2017)

Trust	Agriculture Acres	Range Acres	Forested Acres	Other Acres	All Surface Acres	Oil, Gas, Coal Estate Acres*
Acquired Lands	-	-	32,295	-	32,295	-
Sir Trust	477	2,123	-	-	2,600	-
Navigable Rivers	-	171	-	3,977	4,148	21,536
Montana State University – 2 <sup>nd</sup> Grant	84	8,410	22,320	862	31,676	46,598
Montana State University – Morrill Trust	2,030	55,240	5,522	681	63,473	77,929
Common Schools	556,312	3,694,780	346,811	17,573	4,615,476	5,596,963
School for Deaf & Blind	1,409	24,217	10,399	436	36,461	41,171
Public Buildings	4,344	106,642	71,835	1,833	184,654	172,323
Veterans Home	90	1,270	-	57	1,417	1,276
Montana Tech	6,328	36,802	15,771	447	59,348	86,267
State Normal School	2,428	45,776	14,661	191	63,056	80,455
State Reform School	996	48,695	18,007	83	67,781	74,107
University of Montana	2,003	13,799	1,440	21	17,263	33,754
Total	576,501	4,037,925	539,061	26,161	5,179,648	6,232,379

\*Oil & Gas acreage used for reporting. True acreage when including Coal Estate acres having no overlapping Oil & Gas rights would be larger.

**Table 2** reports historical USDA National Agricultural Statistics Service (NASS) survey data on farm real estate values in Montana from 2007 to 2016. NASS data is not region specific, but is useful as an aggregated observation of rural and working land value trends in Montana.

**Table 2.** Annual Montana Farm Real Estate Values (Acres and U.S. dollars reported by USDA NASS 2007-2016)

Calendar Year	All Farm Land		Agricultural Crop Land		Range, Pasture Land	
	Price/Acre	Annual Change (%)	Price/Acre	Annual Change (%)	Price/Acre	Annual Change (%)
2007	830	15.30%	784	3.70%	740	17.50%
2008	900	8.40%	811	3.40%	760	2.70%
2009	700	-22.20%	787	-3.00%	530	-30.30%
2010	700	0.00%	779	-1.00%	530	0.00%
2011	710	1.40%	807	3.60%	530	0.00%
2012	760	7.00%	853	5.70%	570	7.50%
2013	790	3.90%	890	4.20%	580	1.80%
2014	860	8.86%	987	10.90%	640	10.34%
2015	890	3.49%	997	1.01%	650	1.56%
2016	900	1.12%	1010	1.30%	650	0.00%

**Table 3** reports FY 2016 estimated average asset values on a per acre basis. These values are appreciated from a FY 2011 baseline valuation with a conservative methodology utilizing the trend data provided by the USDA in **Table 2**. Rural and forested lands are appreciated based on a proportion of appreciation reported annually by USDA farm and rural land surveys. Real estate and other special use lands are valued based on existing appraisals (i.e. transaction evidence) by area. Forest land valuation is commonly estimated using income-approach methods. In the case of school trust lands, and for tracking and benchmarking assets over multiple years, a less volatile valuation methodology, which can account for real estate and alternative values, is preferred.

**Table 3. Average Trust Surface Asset Values by Area and Classification (U.S. dollars per acre estimated by DNRC FY 2016)**

Land Office	Agriculture Average Asset Value/Acre	Grazing Average Asset Value/Acre	Forest Average Asset Value/Acre	Real Estate* Average Asset Value/Acre
Central	819	702	1,025	1,670
Eastern	351	235	0	1,231
Northeastern	584	294	342	2,462
Northwestern	2,333	1,402	1,990	43,667
Southern	876	527	0	2,602
Southwestern	1,284	936	1,308	19,405

\* Real estate values reflect existing DNRC land appraisals, proximity to urban areas, and other developed land market factors. Annual adjustments are made using average land appreciation. Land appraisals do not include privately owned structures on cabin sites, or other real estate.

**Table 4** reports FY 2016 beginning estimated total asset values for each trust. Trust real assets totaled approximately \$3.268 billion. These sums are derived through the application of **Table 3** data with **Table 1** current classified acres.

**Table 4.** Total Average Surface Estate Assets by Trust and Classification (U.S. dollars estimated by DNRC FY 2016)

	Agriculture Assets	Grazing Assets	Forest Assets	Other Assets	Total Assets*
Acquired Lands	0	0	42,245,817	0	42,245,817
Navigable Rivers	0	60,116	0	150,681,093	150,741,209
Montana State University – Morrill Trust	80,846	5,954,745	37,286,666	10,739,654	54,061,912
Montana State University – 2 <sup>nd</sup> Grant	1,662,090	38,758,079	9,532,280	1,137,362	51,089,811
Common Schools	360,264,111	1,506,097,432	600,469,045	101,535,889	2,568,366,477
School for Deaf and Blind	958,573	15,758,540	19,277,887	2,932,265	38,927,265
Public Buildings	3,422,044	69,313,184	121,016,769	7,970,132	201,722,130
Veterans Home	209,982	373,905	0	2,280,407	2,864,294
Montana Tech	4,797,565	19,080,165	27,555,111	10,429,483	61,862,324
State Normal School	1,604,573	25,447,658	25,914,260	2,676,949	55,643,440
State Reform School	915,701	29,110,663	21,110,007	1,184,899	52,321,270
University of Montana	1,149,528	5,667,379	1,992,893	34,489	8,844,288
Total Assets	375,065,013	1,715,621,865	906,400,735	291,602,623	3,288,690,235

\* Excludes mineral rights and Permanent Fund valuations.

**Table 5** reports FY 2016 surface lands management income returns by trust. The highest performing trusts in FY 2016 on an asset basis were Public Lands – Navigable Rivers and the University of Montana.

**Table 5. Revenues and Surface Estate Returns by Trust (U.S. dollars estimated by DNRC 2016)**

	Mineral Revenue	Land Management Revenue*	Land Management Costs**	Net Operating Income	Income Returns***
Acquired Lands	15,730	32,324	8,931	23,393	0.1%
Navigable Rivers	815,333	4,639,418	268,147	4,371,271	2.9%
Montana State University – Morrill Trust	13,667	596,602	0	596,602	1.1%
Montana State University – 2 <sup>nd</sup> Grant	88,320	1,042,507	415,930	626,577	0.2%
Common Schools	20,934,069	39,470,090	10,419,165	29,050,925	1.4%
School for Deaf and Blind	60,814	342,736	133,964	208,772	0.5%
Public Buildings	0	2,631,448	803,744	1,827,704	0.9%
Veterans Home	0	17,219	1,268	15,951	0.2%
Montana Tech	77,371	853,247	350,064	503,183	0.9%
State Normal School	979	475,291	256,002	219,289	0.4%
State Reform School	128,344	421,208	191,339	229,869	0.5%
University of Montana	1,103	222,172	27,420	194,752	2.2%
<b>Total</b>	<b>\$19,041,008</b>	<b>\$50,744,261</b>	<b>\$12,875,974</b>	<b>\$37,868,287</b>	<b>1.2%</b>

Permanent fund interest earnings are not reported in this table

\*Land management revenue includes hydro leasing and right-of-way payments.

\*\* Land management costs reflect division costs not including mineral program administration.

\*\*\*Income returns are a dividend equivalent and calculated as the ratio of surface net operating income to estimated average surface asset value of this fiscal year.



## Trust Land Program Performance

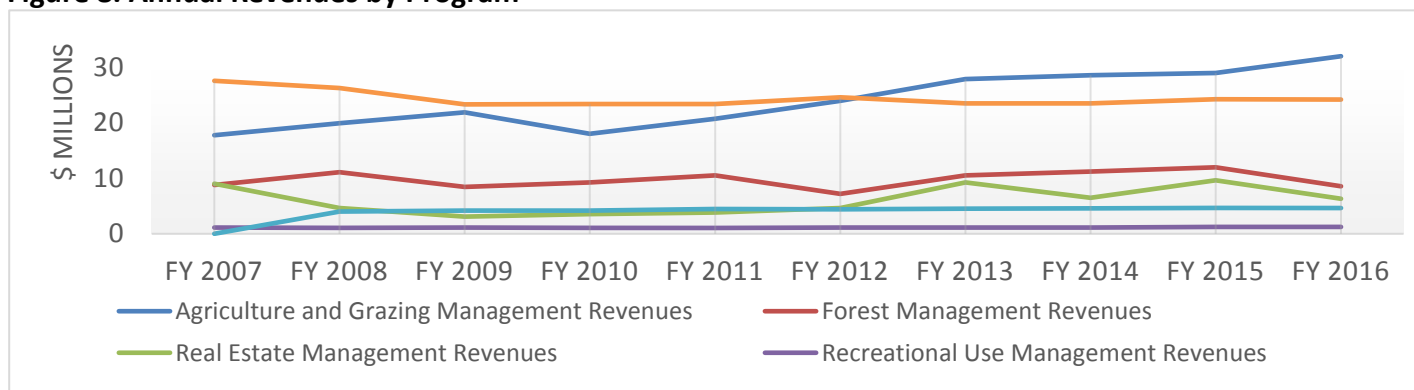
Total program revenues and operational expenses (i.e. costs of doing business) have generally increased over the last eight years.

Table 6, Table 7, and Table 8 summarize program revenues, costs, and net operating income, respectively.

**Table 6.** Trust Land Total Program Revenues FY 2007 through FY 2016 (U.S. dollars reported by DNRC TLMD)

Program	Agriculture and Grazing Mgmt	Forest Mgmt	Real Estate Mgmt	Minerals Mgmt	Recreational Use Mgmt	Total Program Revenues	Permanent Fund Interest / Other	Total Revenues
FY 2007	17,722,354	8,799,298	9,013,114	30,561,328	1,092,280	67,188,374	27,510,474	94,698,848
FY 2008	19,889,416	11,099,301	8,657,342	37,453,810	1,053,587	78,153,456	26,334,091	104,487,547
FY 2009	21,814,675	8,453,067	7,257,667	43,929,054	1,090,628	82,545,091	23,272,324	105,817,415
FY 2010	17,956,610	9,241,157	7,732,549	118,060,706	1,087,310	154,078,332	30,063,075	184,141,407
FY 2011	20,714,158	10,496,231	8,243,870	41,781,055	1,043,707	82,279,021	23,321,207	105,600,228
FY 2012	23,898,972	7,173,483	9,028,381	45,846,476	1,101,020	87,048,332	24,543,638	111,591,970
FY 2013	27,827,321	10,504,738	13,757,776	38,873,679	1,089,037	92,052,551	23,431,753	115,484,304
FY 2014	28,495,222	11,204,002	11,041,050	39,116,340	1,101,392	90,958,006	23,460,822	114,418,828
FY 2015	28,894,893	11,950,115	14,264,276	28,553,590	1,233,102	84,895,976	24,207,216	109,103,192
FY 2016	31,930,471	8,566,451	10,909,324	19,041,008	1,233,225	71,680,479	24,167,124	95,847,603

**Figure 8.** Annual Revenues by Program

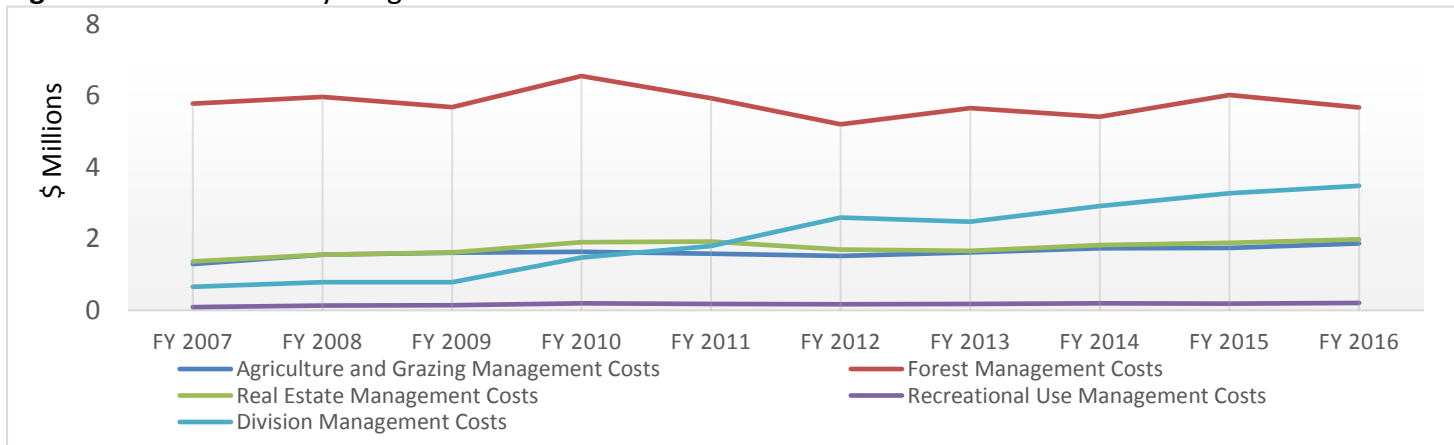


**Table 7.** Trust Land Total Program Costs FY 2007 through FY 2016 (U.S. dollars reported by DNRC TLMD)

Program	Agriculture and Grazing Management Costs	Forest Management Costs	Real Estate Management Costs	Minerals Management Costs	Recreational Use Management Costs	Total Program Costs	Division Management Costs	Total Division Costs*
FY 2007	1,294,689	5,788,769	1,369,285	870,849	90,894	9,414,486	658,589	10,073,075
FY 2008	1,555,835	5,976,279	1,557,478	937,724	130,438	10,157,754	783,715	10,941,469
FY 2009	1,615,873	5,689,349	1,617,817	908,416	141,512	9,972,967	790,099	10,763,066
FY 2010	1,642,688	6,557,139	1,904,162	861,670	192,360	11,158,019	1,475,408	12,633,427
FY 2011	1,581,143	5,938,949	1,927,891	933,019	180,013	10,561,015	1,802,780	12,363,795
FY 2012	1,522,783	5,205,765	1,705,382	936,844	169,114	9,539,888	2,592,640	12,132,528
FY 2013	1,618,377	5,662,690	1,669,435	993,887	174,996	10,119,385	2,481,035	12,600,420
FY 2014	1,735,023	5,421,067	1,826,934	987,336	194,708	10,165,068	2,923,007	13,088,075
FY 2015	1,741,498	6,022,300	1,889,774	933,227	185,322	10,772,121	3,274,242	14,046,363
FY 2016	1,872,312	5,681,176	1,987,614	1,030,263	207,129	10,778,494	3,484,667	14,263,161

\*Includes Forest Improvement, Trust Lands and Directors Office administrative costs, and FWP rec use warden.

**Figure 9.** Annual Costs by Program



**Table 8.** Trust Land Program Net Operating Income FY 2007 through FY 2016 (U.S. dollars reported by DNRC TLMD)

Program	Agriculture and Grazing Mgmt	Forest Mgmt	Real Estate Mgmt	Minerals Mgmt	Recreational Use Mgmt	Total Program Net Operating Income
FY 2007	16,427,665	3,010,529	7,643,829	29,690,479	1,001,386	57,773,888
FY 2008	18,333,581	5,123,022	7,099,864	36,516,086	923,149	67,995,702
FY 2009	20,198,802	2,763,718	5,639,850	43,020,638	949,116	72,572,124
FY 2010	16,313,922	2,684,018	5,828,387	*117,199,036	894,950	142,920,313
FY 2011	19,133,015	4,557,282	6,315,979	40,848,036	863,694	71,718,006
FY 2012	22,376,189	1,967,718	7,322,999	44,909,632	931,906	77,508,444
FY 2013	26,208,944	4,842,048	12,088,341	37,879,792	914,041	81,933,166
FY 2014	26,760,199	5,782,935	9,214,116	38,129,004	906,684	80,792,938
FY 2015	27,153,395	5,927,815	12,374,502	27,620,363	1,047,780	74,123,855
FY 2016	30,058,159	2,885,275	8,921,710	18,010,745	1,026,096	60,901,985

\*includes 1-time \$85.9 million Otter Creek mineral bonus payment

**Figure 10.** Annual Net Operating Income by Program

