

Items #53: Miles of National Forest System Roads

Introduction: The Forest Plan (pages VI-23 and VI-24) projected that additional roads were required to provide access to manage the resources of the Flathead National Forest. The Flathead National Forest has slowed, reduced, and reversed the extent of roading of forest land especially since Forest Plan Amendment 19 was signed on March 1, 1995. Examination of the miles of road constructed, reconstructed, maintained, or reclaimed has become an important tool in evaluation of many forest resources. The management of the road system, whether open, seasonally open, or not open to motorized vehicles is also a key tool.

The 1993 through 1997 report included Table 53-1. In order to display trends, those years have now been included in the latest table which also shows years 1998, 1999, and 2000. Table 53-1 needed a few corrections, especially in reclaimed miles. Reclaimed miles had previously been based on completed contracts at the end of fiscal years. In many cases roads were not removed from the system until significant time had passed so that judgements could be made on whether or not reclamation objectives had been met. In order to better track the miles of road actually included on the Flathead National Forest road system, Table 53-2 has been based on end of calendar year mileages, instead of end of fiscal year or September 30 mileages. Some adjustments have been recognized as necessary in order to account for roads newly discovered, or for more accurate measurements of mileages. This process of accounting has been continued since 1998 and years 2001 through 2008 are included in Table 53-2.

Purpose: This monitoring item was established to evaluate the rate of development of road access on forest land, and to look at the status of road density on forest land.

Methods: Forest Plan Amendment 19 altered the methods used in examination of road density in grizzly bear habitat by utilizing a "moving window" analysis to determine which lands have various densities of roads, both open and total. Forest Plan Amendment 19 took a look at security by "buffering" the road system. In addition to that approach, the forest maintains database information about individual roads which can be queried to produce totals which indicate trends showing the extent of access.

Results: Database totals indicate that the miles of road was trending slowly upward thru 1994, and then began trending downward in 1995. Please refer to Table 53-1 to see road mileage totals for each year. With the routine implementation of Amendment 19 decisions, the downward trend in road mileage continued from 2001 through 2008 as displayed in table 53-2.

Evaluation: Reductions in road mileages to benefit various resources will probably continue as the Forest continues to implement the Forest Plan.

Table 51-1. Flathead National Forest Road System, 1992 to 2000

	CY 1992	CY 1993	CY 1994	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999	CY 2000
New Construction Miles	26.18	3.98	18.56	1.26	3.10	1.21	1.30	0.00	0.00
Reclaimed & Removed from Sys	0	0	0	64.79	13.10	0.61	0.95	186.86	37.24
Mileage Adjustments, Discovery	-	18.46	1.62	12.17	-18.27	-1.11	0.84	10.76	2.46
Open Road Miles	1545.26	1451.69	1451.32	1409.50	1324.68	1275.48	1252.85	1247.48	1230.93
Seasonally Open Road Miles	568.91	468.03	473.48	426.02	446.12	443.80	431.7	422.47	415.81
Not Open Road Miles	1684.79	1883.68	1916.78	1954.70	1991.15	2042.16	2078.08	1916.58	1905.01
Total System Road Miles	3798.96	3821.40	3841.58	3790.22	3761.95	3761.44	3762.63	3586.53	3551.75
Reconstruction Miles	88.99	13.09	11.87	38.34	87.12	123.88	39.60	28.23	0.27
Maintenance Costs	\$753,700	\$594,600	\$845,000	\$721,800	\$801,200	\$801,900	\$843,589	\$1,116,508	\$824,927
Maintained Miles (all maint levels)	2603	2347	1640	1445	1427	1524	1501	1820	1601
<i>total maint level 1 miles</i>	<i>1682.42</i>	<i>1740.77</i>	<i>1758.88</i>	<i>1902.73</i>	<i>1941.42</i>	<i>1967.73</i>	<i>1974.87</i>	<i>1821.81</i>	<i>1811.51</i>
<i>total maint level 2 miles</i>	<i>721.91</i>	<i>808.03</i>	<i>810.92</i>	<i>763.19</i>	<i>743.79</i>	<i>724.12</i>	<i>714.52</i>	<i>717.55</i>	<i>697.99</i>
<i>total maint level 3 miles</i>	<i>1195.93</i>	<i>1064.69</i>	<i>1062.22</i>	<i>944.86</i>	<i>898.84</i>	<i>892.69</i>	<i>895.19</i>	<i>843.54</i>	<i>839.29</i>
<i>total maint level 4 miles</i>	<i>109.76</i>	<i>147.68</i>	<i>149.56</i>	<i>117.46</i>	<i>117.46</i>	<i>152.57</i>	<i>153.38</i>	<i>174.96</i>	<i>174.29</i>
<i>total maint level 5 miles</i>	<i>88.94</i>	<i>60.23</i>	<i>60.00</i>	<i>61.98</i>	<i>60.44</i>	<i>24.33</i>	<i>24.67</i>	<i>28.67</i>	<i>28.67</i>

Table 53-2. Flathead National Forest Road System, 2000 to 2008

	CY 2001	CY 2002	CY 2003	CY 2004	CY 2005	CY 2006	CY 2007	CY 2008
New Construction Miles	0	2.46	1.79	0.1	0	0.05	0	0.0
Reclaimed & Removed from System	1.25	56.54	36.42	41.52	28.09	46.66	42.09	48.44
Mileage Adjustments, Discovery	9.88	-2.32	0.63	6.17	0.50	-0.08	12.52	0.0
Open Road Miles	1207.74	1200.31	1167.09	1155.90	1157.11	1130.88	1120.74	1099.99
Seasonally Open Road Miles	412.12	384.21	375.96	372.81	371.97	371.65	366.37	357.82
Not Open Road Miles	1940.52	1919.46	1926.92	1906.00	1878.05	1857.90	1843.76	1829.82
Total System Road Miles	3560.38	3503.98	3469.97	3434.72	3407.13	3360.44	3330.87	3287.64

Reconstruction Miles	7.77	0	36.54	32.14	0	0	48.43	0
Maintained Miles (all maint levels)	711	680	562	n/a	2069	1839	2928	1913
<i>total maint level 1 miles</i>	<i>1837.76</i>	<i>1823.74</i>	<i>1848.24</i>	<i>1821.20</i>	<i>1793.18</i>	<i>1770.28</i>	<i>1757.60</i>	<i>1756.20</i>
<i>total maint level 2 miles</i>	<i>673.61</i>	<i>648.88</i>	<i>608.96</i>	<i>595.03</i>	<i>594.96</i>	<i>584.96</i>	<i>577.30</i>	<i>545.3</i>
<i>total maint level 3 miles</i>	<i>846.05</i>	<i>828.44</i>	<i>809.98</i>	<i>817.01</i>	<i>817.52</i>	<i>804.01</i>	<i>795.36</i>	<i>785.53</i>
<i>total maint level 4 miles</i>	<i>174.29</i>	<i>174.27</i>	<i>174.20</i>	<i>172.9</i>	<i>172.9</i>	<i>172.9</i>	<i>172.32</i>	<i>172.32</i>
<i>total maint level 5 miles</i>	<i>28.67</i>	<i>28.68</i>	<i>28.58</i>	<i>28.58</i>	<i>28.59</i>	<i>28.29</i>	<i>28.29</i>	<i>28.29</i>

Table 53-2

12/31/2007	CY 2006	CY 2007	CY 2008
New Construction Miles	0.05	0	0.0
Reclaimed & Removed from System	46.66	42.09	48.44
Mileage Adjustments, Discovery	-0.08	12.52	0.0
Open Road Miles	1130.88	1120.74	1099.99
Seasonally Open Road Miles	371.65	366.37	357.82
Not Open Road Miles	1857.90	1843.76	1829.82
Total System Road Miles	3360.44	3330.87	3287.64
Reconstruction Miles	0	48.43	0
Maintained Miles (all maint levels)	1839	2928	1913
<i>total maint level 1 miles</i>	<i>1770.28</i>	<i>1757.60</i>	<i>1756.20</i>
<i>total maint level 2 miles</i>	<i>584.96</i>	<i>577.30</i>	<i>545.3</i>
<i>total maint level 3 miles</i>	<i>804.01</i>	<i>795.36</i>	<i>785.53</i>
<i>total maint level 4 miles</i>	<i>172.9</i>	<i>172.32</i>	<i>172.32</i>
<i>total maint level 5 miles</i>	<i>28.29</i>	<i>28.29</i>	<i>28.29</i>