

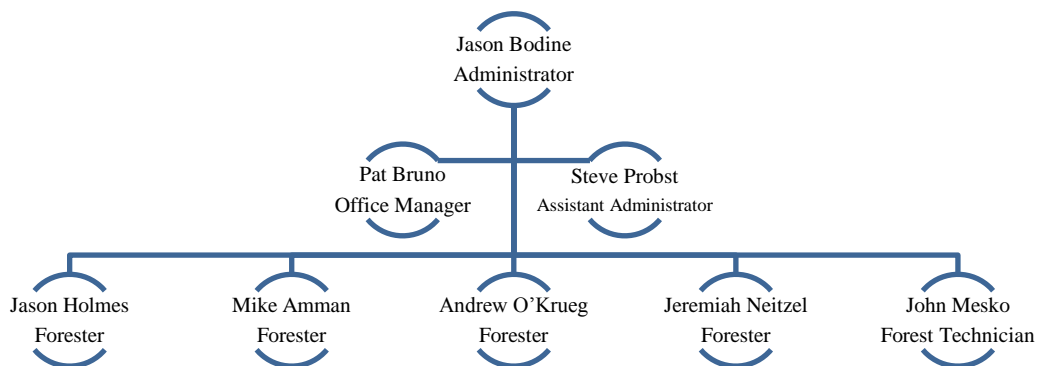
**BAYFIELD COUNTY FORESTRY AND PARKS DEPARTMENT
ANNUAL ACCOMPLISHMENT REPORT
FOR THE CALENDAR YEAR
2012**

FORESTRY AND PARKS COMMITTEE

Shawn Miller, Chair
Marco Bichanich, Vice-Chair
Harold Maki

Kenneth Jardine
John Bennett

DEPARTMENT STAFF



LAND AREA

The present County Forest acreage is as follows:

Barnes	39,357.36	Cable	5,556.33	Oriente	4,720.00
Bayfield	32,792.56	Clover	5,386.57	Port Wing	8,876.18
Bayview	12,951.56	Hughes	24,056.56	Russell	8,570.82
Bell	14,585.03	Iron River	6,042.22	Tripp	6,543.77

Official County Forest Acreage: 169,438.96

There are approximately 3,600 acres of County tax title lands, not including lots and small parcels, in addition to the above listed County Forests Lands. On occasion, the Forestry Department will monitor these parcels for land sales and timber sales, checks for trespass, and negotiate road easements and sand and gravel permits.

COMPREHENSIVE LAND USE PLAN

A comprehensive land use plan that will guide the management of the County Forest for the next 15 years was developed in 2005 and approved by the County Board in January 2006. This plan will be periodically reviewed and amended as the need arises. Amendments must be approved by the

County Board of Supervisors. The Barnes Barrens Management Plan and Green Tree Retention Guidelines were approved in 2011, though no amendments were made to the plan.

FOREST MANAGEMENT

The forest management program is one of the most significant responsibilities of the department. There are three major facets of the program: 1) forest management (timber sale establishment), 2) reforestation, and 3) forest reconnaissance. The quality and quantity of goal accomplishments, as well as the sold value of timber sales, are some of the best indicators used to evaluate performance. Below are summaries of the major forest management priorities.

- 1) Sustainable Harvest Goals: sustainable timber harvest goals for every major forest type are calculated based upon sound silvicultural guidelines and principles. Table 1 displays the sustainable harvest goals and accomplishments of the timber sale program by major forest type since 2008. In summary, a total of 5,183 acres were managed in 2012 (an increase of 4% from 2011 and 42% from 2010). The significant increase in accomplishment is a direct result of adding a new forester position in 2011.

Table 1: Bayfield County Forest Sustainable Harvest Goals and Accomplishments (acres)

Species	2008		2009		2010		2011		2012		Average	
	Goal	Accomp.	Goal	Accomp.	Goal	Accomp.	Goal	Accomp.	Goal	Accomp.	Goal	Accomp.
Aspen ¹	620	716	850	928	870	853	1,189	1,191	1,005	1,230	907	984
Nor. Hdwd	800	803	900	721	900	418	914	973	1,321	1,349	967	853
Red Oak	550	533	670	554	670	607	808	798	763	577	692	614
Paper Birch	200	60	200	16	200	156	200	38	100	132	180	80
Scrub Oak	85	89	85	15	85	167	85	188	140	142	96	120
Red Pine	752	731	749	572	870	743	978	987	991	917	868	790
Jack Pine	354	353	405	413	540	518	516	480	504	493	464	451
White Pine	50	6	50	76	50	15	50	35	100	93	60	45
Fir/Spruce	100	0	100	33	100	180	100	140	60	25	92	76
Swamp Conifer ²	0	0	0	0	0	0	142	160	130	138	54	60
Swamp Hdwd. ²	0	0	0	0	0	0	126	0	120	87	49	17
Total	3,511	3,291	4,009	3,328	4,285	3,657	5,108	4,990	5,234	5,183	4,429	4,090

¹ Greater accomplishments are a result of managing some of the backlog

² Timber types included in goals starting in 2011

Table 2 displays a summary of how the accomplishments for the sustainable timber harvest program are allocated. In general, most of the harvest goal is in the form of a timber sale, however, there are occasions when a stand is updated and managed at a later date. Updates typically occur when a stand has not attained the predicted amount of growth in between harvests, when the data describing the stand is incorrect, or when the stand is removed from management due to a restrictive feature i.e. riparian buffers or inoperable slopes. On average, approximately 90% of total accomplishments are in the form of a timber sale.

Table 2: Bayfield County Forest Sustainable Harvest Summary (acres)

Year	Management Goal	Timber Sale Establishment	Stand Update¹	Total Accomplishments
2008	3,511	2,736	573	3,309
2009	4,009	3,157	243	3,400
2010	4,285	3,331	326	3,657
2011	5,108	4,491	499	4,990
2012	5,234	4,588	595	5,183
Average	4,429	3,661	447	4,108

¹ Stands are updated, in part, due to inaccuracies in the data or insufficient growth for management.

- 2) **Timber Sale Program:** Bayfield County offers two timber sale lettings per year, one in the spring and one in the fall. Table 3 displays the summary of timber sale offerings since 2008. This table describes the total number of sales sold per year, as well as total acres, the total value of the winning high bids, the average bid value per acre and total revenues received from the sale of timber during each calendar year.

Table 3: Bayfield County Forest Timber Sale Summary

Calendar Year	Sales Offered	Acres Offered	Sales Sold	Acres Sold	Acres Not Sold	Timber Sale Bid Values	Bid Value per Acre	Timber Revenues
2008	58	3,546	55	3,507	39	\$2,381,513	\$679	\$2,621,308
2009	45	3,297	42	3,100	197	\$2,510,601	\$810	\$2,305,259
2010	40	3,218	40	3,218	0	\$2,404,178	\$747	\$2,047,663
2011	54	4,156	54	4,156	0	\$3,629,330	\$873	\$2,477,066
2012	53	4,782	53	4,782	0	\$4,900,194	\$1,025	\$2,696,756
Average	50	3,800	49	3,753	47	\$3,165,163	\$827	\$2,429,610

In summary, the total receipts from timber harvested during calendar year 2012 amounted to \$2,696,756. During this period, the department awarded 53 new timber sale contracts, covering 4,782 acres with an estimated value of \$4,900,194. The total acres sold increased by over 15% from 2011 and 67% from 2010. The total winning bid values increased by nearly 35% from 2011 and 103% from 2010! On average, bid prices were up by approximately 17% from 2011 and 37% from 2010.

Table 4 displays the total volume of timber harvested from Bayfield County Forest timber sales from 2008 through 2012. Pulp (cords) and logs (Mbf – thousand board feet) are displayed for each primary timber type. For the sake of comparison, all tonnage sales (chips) were converted to cords (approximately 20% off all timber sales are sold by the ton). The table also displays the total amount of timber sale revenue received each year.

Table 4: Bayfield County Forest Timber Harvest Volume Summary (pulp in cords and logs in thousand board feet)

Species	2008		2009		2010		2011		2012		Average	
	Pulp	Logs	Pulp	Logs	Pulp	Logs	Pulp	Logs	Pulp	Logs	Pulp	Logs
Aspen	19,441	0	15,048	0	15,041	3	14,570	0	14,647	1	15,749	1
Mx. Hardwood ¹	21,609	181	17,470	182	16,735	261	17,549	212	12,539	129	17,180	193
Oak	14,886	643	6,678	516	9,807	782	11,334	1,221	7,916	1,127	10,124	858
Paper Birch	2,231	26	901	7	736	43	766	13	1,083	22	1,143	22
Basswood	1,161	159	1,204	525	1,439	116	1,197	135	1,022	62	1,204	199
Red Pine	13,052	0	6,692	0	4,554	0	8,873	16	10,694	0	8,773	3
Jack Pine	9,218	0	8,410	0	6,572	0	4,533	0	5,352	0	6,817	0
White Pine	1,247	0	715	0	651	0	137	0	48	0	560	0
Other Conifer ²	521	0	500	0	302	0	669	0	465	0	491	0
Fuelwood ³	771	0	2,017	0	1,730	0	1,512	0	777	0	1,361	0
Total	84,138	1,009	59,633	1,230	57,566	1,205	61,139	1,597	54,543	1,341	63,404	1,276
Revenue	\$2,706,360		\$2,305,259		\$2,047,663		\$2,477,066		\$2,696,756		\$2,446,621	

¹ Maple, yellow birch, ash

² Spruce, Fir, Tamarack

³ Mixed species used in wood boilers

In summary, there was approximately 12% less total volume harvested in 2012 when compared to 2011. However, there was a 9% increase in timber sale revenue over the same period.

- 3) **Reforestation Program:** reforestation, be it natural or artificial, is a core building block of forest sustainability and a fundamental component of any forest management program. A successful reforestation program provides numerous benefits, some of which include: the restoration of forest productivity, fertility and environmental function; the assurance of a perpetual, sustainable supply of forest resources and amenities for future generations; the protection of soil and water quality; and the establishment and development of quality wildlife habitat. Newly regenerating stands are monitored 3 to 4 times over a 10 year period to ascertain success. Table 5 displays the summary of the reforestation program.

Table 5: Bayfield County Forest Reforestation Program Summary 2008 - 2012 (acres)

Year	Planting				Seeding	Site Preparation				Maintenance		Monitoring
	Red Pine	Jack Pine	White Pine	Other*	Jack Pine	Trench	Fire Plow	Scarify	Spray	Fire	Spray	Regen
2008	378	207	24	0	0	796	88	0	442	0	0	1,683
2009	487	415	0	0	0	726	72	0	348	40	0	2,652
2010	367	196	0	0	0	363	118	0	420	42	305	2,183
2011	319	153	35	68	0	900	88	0	186	21	324	1,424
2012	295	107	274	0	0	0	177	120	727	32	609	2,736
Avg	369	216	67	14	0	557	109	24	425	27	248	2,136

* In 2011, tamarack and white spruce.

In the spring of 2012, 676 acres were planted with containerized stock. Overall, nearly 221,000 red pine, 126,000 white pine and 81,000 jack pine seedlings were planted. Also, 1,024 acres were prepared for planting or seeding. The DNR fire plowed 177 acres and 727 acres were treated with herbicide. In addition, 609 acres of plantations were released from competition with herbicide. The DNR also straight blade scarified under 120 acres of red oak to facilitate natural regeneration. A 32 acre prescribed burn was implemented to promote red oak regeneration and 2,736 acres of previous reforestation attempts were monitored. Two deer exclusions fences are also maintained to monitor the effects of deer browsing on regenerating red oak, paper birch and white pine.

- 4) Forest Reconnaissance Program: forest reconnaissance, or updating stand information, is also a vital component of the forest management program. Accurate, up-to-date stand information is essential in the development of viable short and long term sustainable harvest goals. The accuracy of any sustainable harvest goal is only as good as the data from which it was derived. Therefore, it is important to update a certain level of stand information on an annual basis.

From 2003 through 2008, the direction of the department was to update approximately 10% of the acreage base (17,000 acres), primarily through entire compartments, on an annual basis. Starting 2009, the direction was changed to 10,000 acres per year. Through 2012, approximately 75% of the forest (over 125,000 acres) has been updated.

In addition to compartment updates, 595 acres of individual stands were also updated during the timber sale establishment process. Most updates were needed to correct inaccurate data or to remove a stand from the harvest schedule (i.e. riparian buffer or sensitive site).

Table 6 displays the summary of compartment/stand updates from 2008 through 2012.

Table 6: Bayfield County Forest Stand Updates (acres)

Year	Goal	Accomplishment
2008	17,000	9,807
2009	10,000	2,872
2010	10,000	4,079
2011	10,000	9,728
2012	10,000	8,135
Average	11,400	6,924

ROADS AND TRAILS

The forestry department maintains over 36 miles of primary gas tax roads on the forest. These roads serve as primary access routes into portions of the county forest. A few of the roads located in the Towns of Barnes and Hughes also play an integral role in the wildfire protection plan that was developed in 2006. The department performs routine annual inspections on every mile of primary road to monitor for both road quality and invasive species. The Department also performs annual routine maintenance on the rights of way for each primary road. Maintenance usually is in

the form of mowing, but can also include herbicide if encroaching vegetation is unable to be mowed.

Trails on the county forest are used for a variety of recreational purposes. Cross country skiing, mountain biking, hiking and dog sledding, as well as snowmobile and ATV use are some of the activities permitted on designated county forest trails. In addition to daily general recreational use, trails on the county forest also play an integral role in numerous popular organized events. Such events include, but are not limited to, the American Birkebeiner, Apostle Islands Sled Dog Race, Chequamegon Fat Tire Festival and the Cable Area Off-Road Classic mountain bike race.

Table 7 displays the approximate number of miles per designated trail type that are currently located on county forest land.

Table 7: Summary of Designated Recreational Trails on Bayfield County Forest land (miles)

Snowmobile	Walking	Dog Sled	ATV	Cross-Country Ski	Mountain Bike	Total
89	79	44	38	31	21	302

The Department staff works closely with all recreational user groups on the establishment and/or maintenance of trail systems. Recreational use agreements with organized clubs continue to be pursued at every opportunity.

PERMITTED USES

Permits are issued by the Forestry and Parks Department for sand and gravel, right-of-ways, timber storage, private property access, firewood, miscellaneous forest products, and recreational activities.

Table 8 displays a summary of permits issued on the forest from 2008 through 2012.

Table 8: Bayfield County Forest Summary of Issued Permits and Approvals

Year	Fire Wood	Balsam Boughs	Cones	Christmas Trees	Access	Events	Disabled Hunting	Storage
2008	360	8	0	1	2	9	3	1
2009	423	5	1	1	0	10	3	1
2010	436	5	1	1	3	10	3	2
2011	503	7	1	6	9	10	10	2
2012	441	6	1	7	8	12	7	2
Avg.	433	6	1	3	4	10	5	2

Firewood permits comprise the vast majority of the total permits issued on an annual basis. In 2012, 441 firewood permits were issued, which was roughly 14% less than 2011. Also in 2012, there were a total of 12 organized events that utilized portions of trails located on the Bayfield County Forest.

Sand and gravel is extracted and sold from county managed pits, to be used on approved municipal projects. Revenues received from the sale of sand and gravel are deposited in a non-lapsing account for eventual site reclamation.

Table 9 displays the total amount of sand and gravel and revenues received from 2008 through 2012.

Table 9: Bayfield County Forest Sand and Gravel Summary

Year	Yards	Value
2008	6,120	\$3,060.00
2009	300	\$150.00
2010	12,589	\$9,441.75
2011	751	\$563.25
2012*	13,029	\$19,544.00
Avg.	6,558	\$6,551.80

* Highway 13 Re-Paving Project

WILDLIFE HABITAT IMPROVEMENT/MONITORING

Forest openings, dominated by forbs and grasses, are important habitat for a great diversity of wildlife species. Since the mid 1970's, numerous, small forest openings have been maintained on the forest to encourage this diversity of habitat. The openings are relatively small in size (average about 1 acre) and are spread throughout the county forest (although they are more numerous in the Bayfield peninsula). Each opening is treated about every five years to discourage encroaching woody vegetation.

Table 10 displays a summary of the wildlife opening maintenance program from 2008 through 2012.

Table 10: Bayfield County Forest Summary of Maintained Wildlife Openings by Treatment

Year	Mowed Number	Mowed Acres	Hand Treated ¹ Number	Hand Treated ¹ Acres	Total Number	Total Acres
2008	44	50	77	60	121	110
2009	62	70	53	24	115	94
2010	45	44	50	57	95	102
2011	46	53	52	24	98	77
2012	0	0	76	68	76	68
Average	39	43	62	47	101	90

¹ using a mix of herbicide and hand cutting

In 2012, 76 wildlife openings, totaling 68 acres were maintained by hand, using a mix of herbicide and cutting. Openings are scheduled for mowing 4 out of every five years. There were 0 acres mowed in 2012.

In 2008, a breeding bird monitoring project was developed for the county forest. In 2008 and again in 2009, 350 permanent diurnal and 40 nightjar points were completed. An additional 297 diurnal and 17 nightjar points were taken in 2010. The remaining portion of the forest was completed in the spring of 2011. In total, 1,200 diurnal and 200 nightjar points have been taken. The collection of field data is now complete. We will be working with the DNR and other resource professionals to analyze the data. The results will be used to measure bird/habitat associations, anticipate how forest management may influence these relationships and predict general species occurrence.

FINANCIAL ASSISTANCE – GRANTS AND AIDS

Financial assistance plays a major role in helping to achieve annual and long term objectives. Table 11 outlines some of the major grants and aids awarded to the Department from 2008 through 2012. Every award listed in the table, with the exception of the Arbor Day grant, has come from the State of Wisconsin.

Table 11: Bayfield County Forestry and Parks Department Summary of Major Grants and Aids

Year	County Forest Administrator	Wildlife Habitat Improvement	County Forest Road Aid	Sustainable Forestry	County Conservation	Arbor Day	Total
2008	\$31,933	\$16,929	\$10,440	\$39,720	\$4,125	\$0	\$103,146
2009	\$35,762	\$16,945	\$12,126	\$33,000	\$2,289	\$0	\$100,122
2010	\$44,039	\$8,472	\$11,390	\$6,205	\$3,807	\$20,400	\$94,313
2011	\$44,039	\$8,472	\$11,347	\$0	\$0	\$46,202	\$110,060
2012	\$46,877	\$8,472	\$11,330	\$0	\$6,500	\$18,450	\$91,629
Average	\$40,530	\$11,858	\$11,327	\$15,785	\$3,344	\$17,010	\$99,854