



## **BAYFIELD COUNTY FORESTRY AND PARKS DEPT.**

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### **BAYFIELD COUNTY FORESTRY & PARKS DEPARTMENT** **ANNUAL WORK PLAN**

January 1 through December 31, 2015

The Bayfield County Forestry and Parks Department Work Plan for the 2015 calendar year gives direction and meaning to the Forestry and Parks budget, further defines and supplements the Comprehensive Fifteen Year Land Use Plan, and emphasizes current needs of the County Forest, Parks and Trails Programs. **This plan complies with Chapter NR47 Wisconsin Administrative Rules for the administration of the County Forest Administrator Grant Program.**

#### **SUSTAINABLE TIMBER HARVEST**

One of the primary missions of the Bayfield County Forestry and Parks Department is to manage, conserve, and protect the natural resources of the County Forest. Multiple use and sustainable forest management practices will be utilized to provide a wide variety of forest products and amenities for current and future generations. Sustainable forest management is commonly defined as meeting the forest resource needs and values of the present without compromising the similar necessities of future generations.

Timber harvests are important for the economic well being of Bayfield County, as well as for the health and vigor of the forest. One of the objectives of timber management is to produce a perpetual sustained yield of forest products. In part, this is realized through the analysis and scheduling of forest stands for management and, ultimately, the development of sustainable annual and long term harvest goals.

Professional implementation of proper forest management and harvesting techniques is essential. Existing reconnaissance data, along with thorough field inspections conducted by Bayfield County Forestry and Parks Department staff (hereafter "Department") and DNR foresters, will be used to determine which stands are ready for treatment. In addition, the long term monitoring of stands that have received treatment is crucial in determining the success of past management practices, as well as the development and implementation of future prescriptions.

#### **Annual Sustainable Harvest Goal**

The estimated 2015 sustainable allowable harvest goal for the Bayfield County Forest is 4,645 acres. This represents an increase of 25 acres (roughly 0.5%) when compared to the harvest goal for 2014.

Numerous factors impacted the harvest goal for this coming year. In the northern hardwood type, existing stand data (prescriptions) has repeatedly conflicted with field observations. As a result, one goal for 2015 and 2016 is to update all stand and prescription information in the northern hardwood type. In the meantime, the goal for all-aged management decreased slightly and even-aged management increased, as a temporary response to managing stands on marginal sites.

In the red oak type, updated stand information revealed a significant decrease in acres ready for, or otherwise in need of, a thin. The Department is in the process of updating stand information in all red oak stands in an attempt to better capture management needs. It is anticipated that the total amount of acres suitable for a thin will significantly decrease.

Small, natural increases in the aspen and scrub oak types and decreases in the paper birch, jack pine and white pine types were the other more notable changes, when compared to the goals for 2014.

Table 1 displays the sustainable harvest goal (acres) per primary timber type for 2015 (during the season, the annual harvest goal may be adjusted for a variety of reasons, i.e. response to unanticipated natural events or significant changes in reconnaissance data). The goal for 2014 is also included for comparison:

**Table 1: Sustainable Harvest Goal (acres)**

<b>Timber Type</b>	<b>2014</b>	<b>2015</b>
Aspen	1,265	1,300
Northern Hardwood	900	835
Red Oak	700	820
Paper Birch	90	40
Scrub Oak	205	250
Red Pine	880	855
Jack Pine	190	165
White Pine	120	100
Swamp Conifer	120	130
Swamp Hardwood	110	110
Fir/Spruce	40	40
<b>Total</b>	<b>4,620</b>	<b>4,645</b>

One of the objectives in managing the forest is to strive for a regulated, even flow of treatments, equally distributed over the landscape. However, sustainable harvest goals typically fluctuate slightly from year to year. Most fluctuations are explained by the irregular distribution of age classes over the entire forest and, subsequently, when they are ready for management.

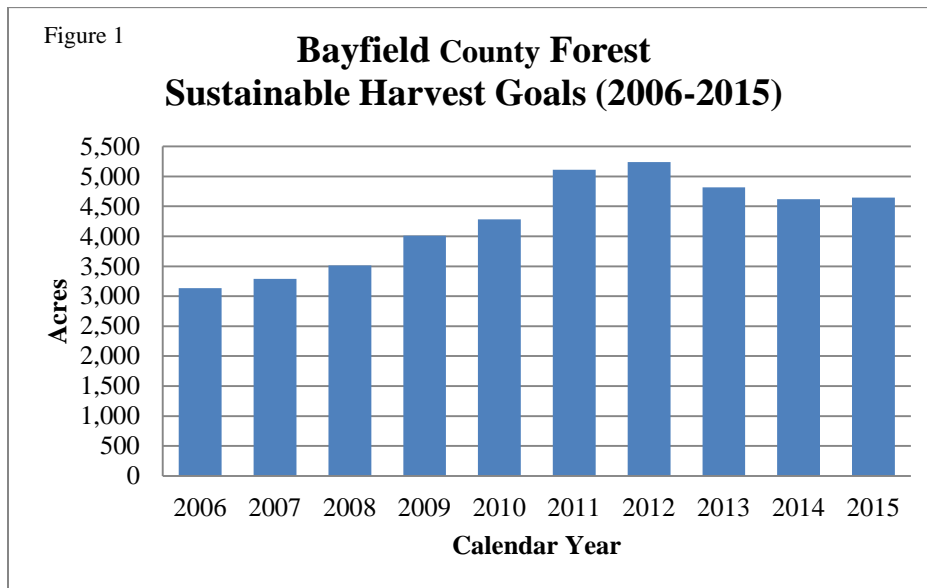
Among other things, fluctuations are also a result of a change in management direction for individual timber types, responses to natural disturbances or other unforeseen natural events, a relatively poor response in growth from previous management, or modifications in response to accomplishments from the previous year (i.e. the management of backlogged stands).

On the Bayfield County Forest, the primary annual differences in sustainable harvest goals are a result of a variety of factors, some of which include: improved reconnaissance information, a significant increase in the number of stands reaching management age (particularly in the aspen and red pine types), the inclusion of harvest goals for the swamp hardwood and swamp conifer timber types, adjustments in the management approaches of the aspen, red oak and northern hardwood timber types, and modifications as a result of previous accomplishments.

Over the past decade, the sustainable harvest goal has changed significantly. The peak harvest goal was in 2012, with a target of 5,238 acres. This was primarily due to the addition of numerous older, backlogged stands. Now that most of the backlogged stands have been managed, the annual sustainable harvest goal should hover between 4,500 and 4,800 acres per year.

Since 2006, the harvest goal has increased by approximately 48%; from 3,134 acres to 4,645 acres in 2015.

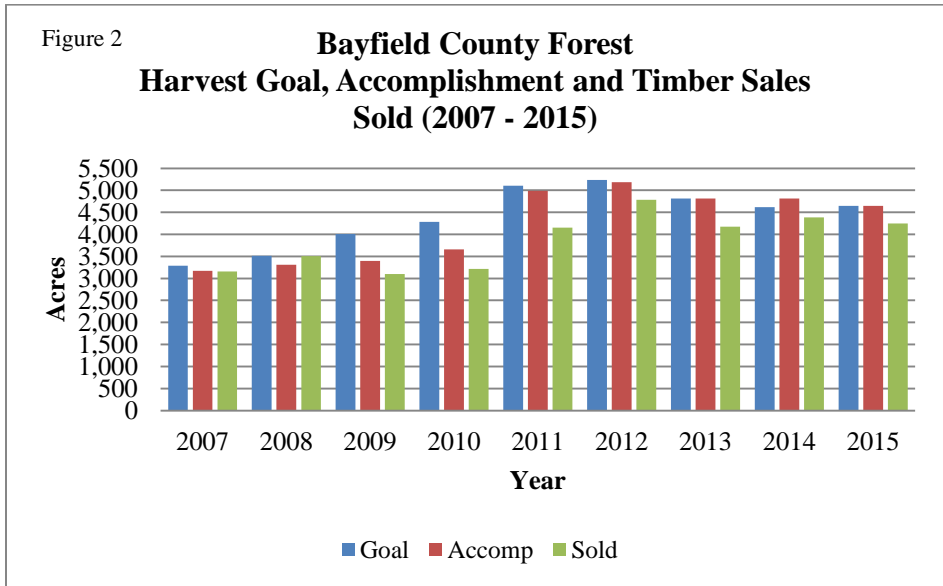
Figure 1 displays the total sustainable harvest goals over the past 10 years.



Maximizing the sustainable management of the county forest was a primary goal heading into calendar year 2011. As displayed in Figure 1, the average sustainable harvest goal from 2011 through 2015 increased by nearly 1,250 acres per year when compared to the average goals from 2006 through 2010. In addition, numerous other forest management responsibilities increased over the same time period creating a significant deficit in accomplishments for annual and long term goals.

To address the deficit, in the early winter of 2011, one full time forester position was added to the staff. The impact of the additional forester was immediate.

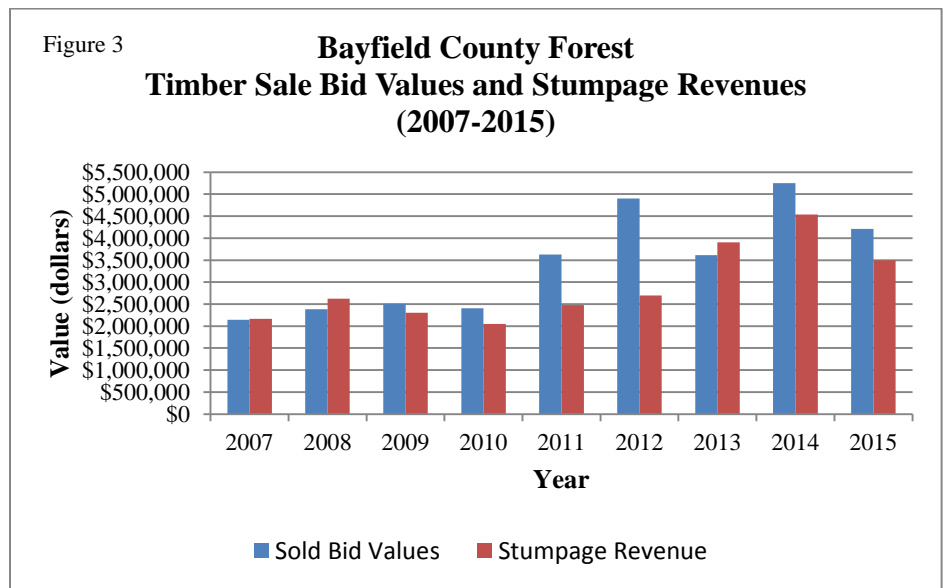
Figure 2 displays the annual sustainable harvest goal, accomplishment and sold timber sales from 2007 through 2015 (2014 and 2015 are estimates):



Maximizing the sustainable harvest of the forest has numerous benefits. Not only does it have the potential to significantly increase revenues, but it also supports numerous local jobs, fosters new job growth, provides additional recreational opportunities, and provides exceptionally well managed products to local wood industries.

Prior to 2011, the Department averaged 45 sales, covering 3,044 acres per year. The average total winning bid value for those sales was approximately \$2.4 million. Since 2011, the Department has averaged 56 sales, covering nearly 4,400 acres. During that time, the average total winning bid values have increased by 83%, to over \$4.3 million.

Figure 3 displays the total sold value of timber sales and actual revenues from stumpage (harvested timber) from 2007 through 2015 (2015 is an estimate and is based upon the average prices paid and revenues received over the last three years):



## FOREST INVENTORY

Correct, up-to-date stand information is imperative in the development of accurate short and long term sustainable harvest goals. There is a direct correlation between the quality and accuracy of the reconnaissance data and the ability for forest managers to confidently develop precise 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.

Table 2 summarizes the inventory goal (compartment and stands) and actual accomplishments since 2008:

**Table 2: Bayfield County Forest Inventory (acres)**

<b>Year</b>	<b>Goal</b>	<b>Accomplishment</b>
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
2013	10,000	9,316
2014	10,000	8,552
2015	12,500	12,500
Average	11,188	7,323

Starting in 2014, the Department focused on updating select individual cover types rather than entire compartments, though a few compartments were still updated. Two major timber types targeted in 2014 were mature stands of red oak and mature stands of jack pine. The goal of re-inventory was to develop a system to better prioritize the future management of these two types.

In 2015, a similar approach will be applied. Approximately 12,500 acres of the County Forest will be re-inventoried. The focus will be on the remaining mature stands of red oak, but will also include mature stands of northern hardwood.

In the red oak timber type, the county forest contains roughly 12,000 acres of mature stands, mostly between 85 and 95 years old. The goal is to spread out the regeneration of these stands over the next 25 to 35 years. In order to do that effectively, we need to identify which stands need management now and which are capable of being harvested in the distant future. Data acquired from the re-inventory process will be used to help schedule future red oak thinnings and will be integral in the development of accurate annual sustainable harvest goals. A portion of the red oak type was inventoried in 2014. More will be targeted in 2015.

Site quality, and, subsequently, stand quality are highly variable within the northern hardwood type. In the past, the prescription applied to nearly every stand, by default, has been all-aged management. While this prescription is preferred on much of the cover type, it is not sustainable on many of the moderate, and most of the poor, quality sites. The goal of northern hardwood re-inventory is to better capture site and stand quality as part of the silvicultural prescription. Once the

re-inventory is complete, it is anticipated that the total acreage slated for all-aged management will decrease slightly, with a small increase in even-aged management (especially on the poor to moderately poor quality sites).

There will still be approximately 5,000 acres of compartment updates in 2015. Since 2001, 166 of 202 compartments, totaling nearly 140,000 acres have been updated. The goal is to re-inventory the remaining 36 compartments over the next 5 years. Once completed, it will put the department on pace to achieve the 15 year re-inventory goal. At which time, a 15 year, modified re-inventory cycle will be implemented.

When updating entire compartments, priorities will be placed on those that contain a larger percentage of old data ( $\geq 20$  years old), as well as compartments that contain a larger percentage of stands prescribed for management in the near future.

## REFORESTATION

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.

Table 3 summarizes the reforestation efforts that are planned for 2015:

**Table 3: Bayfield County Forest Reforestation Program Summary 2008 - 2015 (acres)**

Year	Planting				Seeding	Site Preparation				Maintenance				Monitoring
	Red Pine	Jack Pine	White Pine	Other <sup>1</sup>	Jack Pine	Trench	Fire Plow	Scarify	Spray	Fire	Spray	TST <sup>2</sup>	Bud Cap	Regen
2008	378	207	24	0	0	796	88	0	442	0	0	0	0	1,683
2009	487	415	0	0	0	726	72	0	348	40	0	0	0	2,652
2010	367	196	0	0	0	363	118	0	420	42	305	0	0	2,183
2011	319	153	35	68	0	900	88	0	186	21	324	0	0	1,424
2012	295	107	274	0	0	0	177	120	727	32	609	0	0	2,736
2013	281	174	92	0	558	264	0	40	0	0	449	0	239	2,522
2014	0	0	0	0	0	506	20	115	264	0	273	0	239	2,929
2015	62	0	124	0	202	621	0	100	655	0	650	50	239	2,500
Avg.	274	157	69	9	95	522	70	47	380	17	326	6	90	2,329

<sup>1</sup> In 2011, tamarack and white spruce.

<sup>2</sup> Timber Stand Improvement - Hand release of established regeneration

### Spring Planting

The planting program has significantly changed since 2013. In 2014, zero acres were planted, the first time that has happened in recent memory. The primary reasons for the decrease are: 1) old fuel break areas have been mostly re-planted. The remaining 144 acres will be seeded to jack pine in 2016; 2) a general lack of previously open areas, which, in the past, were planted to red pine; 3) a lack of mature red pine stands that are ready for regeneration; 4) movement towards primarily jack pine regeneration in the Barnes Barrens Management Area; 5) an emphasis on seeding when attempting to regenerate jack pine.

In 2015, 62 acres will be planted with containerized red pine stock. Also, 124 acres will be planted with containerized white pine stock (some of those acres will be mixed with white spruce). All of the white pine will be planted underneath existing canopies (shelterwoods).

In the future, the general expectation is that red pine plantings will hover around 100 acres or less per year, while white pine underplantings will vary, depending on the availability of suitable sites. We will also be taking a closer look at red pine to determine if there is a need to begin regeneration harvests sooner, in an attempt to evenly distribute age classes over the landscape.

### Spring Seeding

The seeding program also changed significantly over the past few years. Before 2013, the Department had generally moved away from artificial seeding. Starting in 2013, the Department began implementing objectives that were developed in the Barnes Barrens Management Plan. Amongst other things, the plan identifies a preference to regenerate a jack pine dominated landscape (within the Barrens area), with artificial seeding as the preferred reforestation method.

Before a site is seeded it needs to be mechanically prepped and usually sprayed. Also, there needs to be enough acres available before local contractors are interested in the work. Acres that were trenched in 2014 will be sprayed in 2015. These sites would then be seeded in 2016.

The timing of when timber sales are harvested also has a direct impact on how many acres will be available for reforestation. Timber sales are sold as two year contracts. The contractor can request up to two - one year extensions (meaning it can take up to four years to complete the sale).

In 2015, approximately 202 acres will be seeded with jack pine. For the time being, the seeding program will be somewhat cyclic, generally occurring in alternating years. As the program progresses, we should reach a level where seeding occurs on an annual basis.

### Site Preparation

In 2015, approximately 621 acres are planned for site preparation via power trenching, 655 acres will be treated with chemical and 0 acres will be fire plowed. A portion of the power trenching acres were carried over from 2014. In addition, approximately 100 acres of red oak, paper birch and/or northern hardwoods will be scarified, usually with a dozer and straight blade. Scarification will facilitate the natural regeneration of red oak and paper birch, as well as reduce competition from non-desirable species, such as ironwood and, in some stands, red maple. If fire plow sites become available in 2015, there may be some additional acres treated.

### Release

Approximately 650 acres of young red pine plantations will be aerial sprayed to release the conifers from competition. The prescribed burn program is still under review to gauge the effectiveness of fire. As a result, 0 acres will be treated with fire in 2015. Approximately 50 acres of red oak and/or white pine may be mechanically released (TSI with a chain or brush saw), if conditions allow. Other types, like northern hardwoods, may also benefit from mechanical release. These stands will be treated on a case by case basis.

## Seedling Protection

Starting in 2013, the Department used bud caps to protect young jack pine seedlings from browsing by white tailed deer. In total, 239 acres were bud capped. This literally involves stapling a 3”x 3” piece of copy paper over the terminal bud/leader of each planted seedling. The reason: plantation monitoring in this area has shown signs of excessive deer browsing. Failure to protect the seedlings could lead to plantation failure. Bud capping would need to be repeated every year until the seedlings are beyond the reach of the deer, which typically takes 3 or 4 years. Currently, the focus is on stands that are planted with containerized jack pine (as these seedlings are a little more nutrient rich when compared to bare root stock or natural regeneration).

These same stands were capped in 2014. The goal for 2015 will remain 239 acres. Because most of the jack pine in the future will be regenerated via seed, bud capping will most likely only be used when absolutely necessary.

## Natural Regeneration

Thousands of acres of natural regeneration will occur on a variety of forest types. The exact amount is solely dependent on the total number of acres harvested in previous years. Forest types such as northern hardwoods and aspen regenerate naturally via seed, stump sprouting and/or coppicing (vegetative sprouting from existing root system) and require very little additional input from the department. However, the natural regeneration of hardwood forest types such as red oak and paper birch often require additional Departmental maintenance efforts.

Natural regeneration monitoring is also starting to find excessive ironwood competition in stands of northern hardwoods. These stands may require additional inputs from the Department in order to achieve the desired future stand condition.

Examples of additional inputs include: pre or post sale site scarification to prepare a favorable seed bed and reduce competition, pre or post sale burning or timber stand improvement (TSI) to reduce competition from undesirable tree seedlings and/or prepare favorable seedbeds, and deer browse protection i.e. fencing, repellents, etc. to improve the tree seedlings chance of survival. These additional inputs occur when opportunities arise and are treated on a case by case basis.

## Seedling Counts

All planting sites and many areas that were regenerated naturally require survival counts. Data collected from the counts are used to determine stocking levels of desired tree species and, ultimately, to evaluate the success of the reforestation attempt. Seedling counts are administered at one, two, three and five years after the regeneration attempt on most planted sites. Seedling counts on naturally regenerating hardwood stands are typically administered two to four years after harvest (depending on the forest type) and also include one to two additional surveys to determine success.

In 2015, seedling counts will be administered on roughly 1,500 acres of sites that were regenerated artificially (planted or seeded) and on roughly 1,000 acres of sites regenerated naturally. Counts administered on natural sites generally focus on: stands that require additional inputs i.e. mechanical scarification, prescribed fire, etc.; cover types that are typically difficult to regenerate i.e.



red oak, paper birch; stands where competition from undesirable species has traditionally been more prevalent i.e. ironwood in stands of northern hardwood.

### Prescribed Fire

Prescribed fires has traditionally been used to maintain portions of the fuel breaks located in the Township of Barnes, as well as to facilitate natural red oak reproduction in stands located throughout the county forest.

In 2015, 0 acres of forested stands will be treated with prescribed fire. Portions of the existing fuel breaks may be treated with fire if conditions allow. If conditions allow, portions of the existing fuel break may receive maintenance burns.

## WILDLIFE

A number of wildlife projects will again be undertaken in 2015. The majority of wildlife habitat improvement work conducted on County Forest land will be accomplished utilizing funding from Wisconsin DNR grant programs, specifically, the County Conservation Aids and Nickel-an-Acre programs. The Nickel-an-Acre program reflects a change from the previous Dime-an-Acre funding. As indicated in the name, the program funding was cut in half starting in 2010 and will continue to be funded at a nickel an acre into the foreseeable future. The County Conservation Aid grant requires a 50% County match on eligible projects.

The Conservation Aids project for 2015 have yet to be determined. There is approximately \$7,986 available for eligible projects. Additional monies may also be available, as determined by the total amount of unallocated funds.

The Nickel-an-Acre grant totals \$8,467. This grant has been used to fund a variety of County Forest wildlife projects in the past.

Potential projects for 2015 could include, but are not limited to:

- Site prep and seeding for jack pine in the Barnes Barrens Management Area.
- Mechanical and/or chemical treatments for wildlife opening maintenance (currently roughly 100 acres combined per year).
- Wildlife habitat development/improvement.
- Mechanical site prep for natural white birch, red oak or northern hardwood regeneration.
- Prescribed burning of wildlife openings and oak regeneration areas.
- Fish habitat projects.
- Habitat projects on old homesteads.
- Wildlife monitoring.
- Breeding bird surveys.
- Land acquisition.
- Invasive species eradication.
- Deer exclosures for red oak regeneration (fencing).
- Seedling protection (bud capping, spraying, etc.).

## **ACCESS MANAGEMENT**

The revised Access Management Plan (Chapter 700) was finalized and approved in 2013. Implementation of the Plan began in 2014 and will continue in 2015. The focus will be on the placement of road and trail markers, informational signage, minor repairs of existing roads and trails and the installation or removal of restrictive features (i.e. berms, gates, etc.) to control motorized access.

Also, the Department will begin monitoring the existing road and trail infrastructure to determine future use status. Repair and maintenance of the infrastructure will occur on an as needed basis, as funding allows. Road building projects may also be developed, especially on those that receive high levels of use, are located in more sensitive areas in need of minor attention, and/or provide access into current or future timber sales and have the potential to increase future stumpage prices. Road projects can be performed by Department staff, DNR staff or general contractors.

In early 2015, the Department will also be providing a new online interactive road and trails mapping program. The program will be available on the Department website and will allow users to focus on areas of interest and customize printable maps.

The Department will continue to maintain 37.97 miles of Primary Forest roads, for which we receive DOT County Forest Road Aids. The Department will also continue to identify, plan and/or develop additional forest roads and trails, as the need arises, for later entry into the County Forest Road program.

## **BAYFIELD COUNTY FOREST PLAN**

The existing County Forest Comprehensive Land Use Plan for the period 2006 – 2020 may be amended to reflect changes and/or updates. Some items that may require updating in 2015 include, but are not limited to:

- Integrated Resource Management Unit (IRMU) summaries.
- IRMU boundaries.
- Barnes Barrens Management Plan summary.
- Timber sale contract language.
- Firewood permit language.
- Timber sale rutting policy.
- Forest certification (addition of FSC).
- Silvicultural revisions/updates on individual forest types.

## **OTHER ACTIVITIES**

### **Recreation:**

The Department will continue to work with the County Tourism Department and interested user groups regarding recreational activities occurring on the County Forest. The demand for recreational use on County Forest land continues to increase. Over the past few years, the Forestry and Parks Committee has approved numerous re-routes of snowmobile and ATV trails, the

construction of a new mountain bike trail network and improvements to existing cross country ski trails.

Requests to host events on trails located within the Forest continues to increase as well. Some of the more notable events that utilize portions of trails located on the Forest include: the American Birkebeiner Cross Country Ski Race, the Chequamegon Fat Tire Mountain Bike Race, the Cable Area Off-Road Classic Mountain Bike Race and the Apostle Islands Sled Dog Race.

Requests for new or improvements to existing motorized and non-motorized trail systems are expected to continue in 2015 and beyond. Requests for additional trails will be treated on a case by case basis, as per the Access Management Plan.

Trail counters have been used in a variety of settings to determine actual use of certain trails and/or areas. Data received from these counters will provide the County with valuable information needed to determine future direction. Counters will continue to be used throughout the forest to monitor usage in 2015.

Throughout any given year, the Department will explore additional opportunities to enhance the recreational use of the Forest. Existing networks are routinely analyzed and areas are explored for new recreational potential. Some potential projects for 2015 include:

1. Minor repairs and signing of the Lost Creek Falls Trail.
2. Explore the potential of creating new, or improvements to existing, multi-use, non-motorized trails at numerous locations including: Lost Creek Falls, Glacial Kettles Area, Spring Creek Area and Menard Road Area and/or other locations throughout the Forest. Pursue as funding allows.
3. Explore the potential of creating dispersed camping sites, including the construction of yurts or other similar camping units. Pursue as funding allows. Develop a pay for use structure.

As part of the 2015 budget, the Department created a Recreational Trail Improvement Grant. The grant allocates \$30,000 and was created to assist non-profits or other similar organizations with the development, improvement or maintenance of recreational trails (with an emphasis on non-motorized) located on the County Forest, or those that connect to trails on the County Forest as part of a larger, inter-connecting network. The Department will advertise and administer this grant in 2015. If successful, this grant could become annual.

#### Insects and Disease:

The Department is continuing to monitor the effects of forest insects such as the jack pine budworm, two-lined chestnut borer, emerald ash borer, and gypsy moth. If any additional sites containing a significant amount of damage are discovered, they will be promptly managed. Also, as new threats are encountered, the Department may need to alter management plans accordingly.

The most notable “new” threat regarding the overall health of the forest is the gypsy moth. Gypsy moth numbers, and subsequent defoliation, have been previously observed in very high numbers in the Bayfield Peninsula. The greatest numbers have been found along higher elevations located in the general vicinity of Jammer Hill and Echo Valley Roads. Red oak and aspen are their preferred

primary food sources and are the most susceptible to potential mortality, especially the suppressed and over mature individuals. Significant defoliation of red oak and aspen occurred in these areas during the summer of 2012.

However, egg mass numbers declined dramatically in 2013 and remained low in 2014, indicating that defoliation may be minor in 2015 and beyond. As a result, we will resume all red oak management in the areas where egg mass counts were high in 2012 (currently IRMU's 1 and 8). If gypsy moth numbers significantly increase in 2015, oak management may be adjusted accordingly. If oak management is reduced in specific units, the sustainable goal in all other units may be adjusted accordingly.

The Department is continuing to work with the DNR to determine the best course of action regarding general forest management practices in the face of a threatening gypsy moth defoliation event.

Emerald ash borer (EAB) was discovered in Douglas County and, most recently, in Oneida County. As a result, those counties have been quarantined, meaning, in general, that there are now restrictions on the movement of wood.

To date, EAB has not been discovered in Bayfield County. It is estimated that ash contributes approximately 0.5% of annual stumpage revenues and is present, as a dominant forest type, on approximately 1.5% of the County Forest. Other than targeting ash a little more often during management (and encourage maple regeneration), Bayfield County is not expecting a major change in forest management practices if EAB is found on the forest.

#### Invasive Species:

The Department routinely inspects roads and timber sales for the presence of invasive species. If located, a plan for treatment is developed. The presence of invasive species (both native and non-native) is rare on the Forest. The Department typically treats a few small patches of land per year.

The most common non-native invasive species treated on the County Forest are buckthorn (in the forest) and spotted knapweed (on roads and trails). Black locust has been the most common native invasive to be treated on the Forest, typically occurring in small isolated patches in the vicinity of old, abandoned homesteads.

Treatments have traditionally been performed by Department staff, usually involving chemicals. In the event that larger patches are located, it may become necessary to contract out treatment. All occurrences are managed on a case by case basis, as funding allows.

In 2014, the Department received a Sustainable Forestry Grant for the treatment of spotted knapweed on 50 miles of forest roads in the Barnes Barrens Management Area. The grant totals \$37,500 and will use herbicide to manage and eventually eliminate knapweed in the area and, hopefully, prevent any further spread into the barrens. The project focuses on roads that are the most heavily infested, but more still needs to be done. This grant will help kick start the program, which will require additional inputs in order to keep the problem in check. Work on the project will begin in 2015.

## Permits:

Every year, the Department reviews numerous requests to utilize portions of the Forest. Requests vary, but the most common ones include: providing access to private lands; providing access to land or trails for hosting organized recreational events; collecting balsam boughs; and collecting firewood. All requests are treated on a case by case basis and are typically handled with a use permit.

Table 4 summarizes the total permits and approvals issued by the Department from 2008-2015 (2014 and 2015 are estimates):

**Table 4: Bayfield County Forest Summary of Issued Permits and Approvals**

Year	Fire Wood	Balsam Boughs*	Cones**	Christmas Trees	Birch Stems	Access	Events	Disabled Hunting	Storage
2008	360	8	0	1	0	2	9	3	1
2009	423	5	1	1	0	0	10	3	1
2010	436	5	1	1	0	3	10	3	2
2011	503	7	1	6	0	9	10	10	2
2012	441	6	1	7	0	8	12	7	2
2013	406	16	13	3	2	6	17	6	2
2014	486	9	6	4	1	7	18	5	2
2015	450	8	6	1	1	7	18	5	2
Avg.	438	8	4	3	1	5	13	5	2

\* in 2014, includes 1 permit for sheet moss and 1 for princess pine

\*\* specifically advertised for jack pine cones in 2013

## Town Road Aids:

In 2010, Bayfield County developed the Town Road Aid Fund. This fund was created to help improve problem areas on Town Roads that provide critical access to the County Forest. Town Road Aids were initially funded at 1% of total annual timber sale revenues (enacted once actual revenues exceed the budgeted amount). Starting in CY 2014, Bayfield County increased the funding level to 2%. As a result, for CY 2015, there will be nearly \$91,000 available for eligible Town Road projects.

All projects are submitted to the Department and ultimately approved by the Forestry and Parks Committee. The Department works closely with each Town in the development and administration of each potential project.

## Land Acquisition:

The Department will continue efforts to acquire private properties on a willing seller, willing buyer basis, when advantageous to the long term goals of Bayfield County. A priority will be given to land located within the existing county forest blocking.

In December 2014, the Department received preliminary approval for two Knowles-Nelson Stewardship Grants. If officially awarded, each grant would be used to purchase forested land for

enrollment into County Forest Law.

Currently, the Department is working on one Stewardship grant (Meteor Timber) that would purchase approximately 1,392 acres in the Towns of Barnes, Bayview and Hughes, while the other (Lyme Timber) would purchase approximately 463 acres in the Town of Barnes. To cover the required County 50% match for each grant, the County would use the appraised value of land already owned by the County (but not currently part of the County Forest). The total amount of County land available as a match is approximately 1,000 acres.

By using the appraised value of County owned land as the required match, the Department can tailor projects that would ultimately result in zero out of pocket expenses for the County. In the end, the actual amount of land included in each project, both for purchase and used as a match, will depend entirely on the actual appraised values and final agreed upon purchase prices.

If both Stewardship projects are awarded as planned, the County would acquire approximately 1,855 acres of forest land, while using between 850 and 1,000 acres of County owned land as the required match (depending on appraisals and purchase prices). All land involved in the projects would be enrolled in County Forest Law and made part of the County Forest. In 2015, there could be up to approximately 2,855 acres added to the County Forest.

Many of the stands being considered for purchase, as well as most of the stands being considered as a match, contain mature timber and are in need of immediate management. If the Stewardship projects are awarded as planned, the annual harvest goals will be modified slightly to account for the additional acreage, particularly in the red pine type.

#### Management of Other Bayfield County Owned Lands:

Currently, Bayfield County owns approximately 3,500 acres of County tax title lands, not including lots and other small parcels, in addition to the above listed County Forests Lands. Also, the County owns approximately 3,100 acres of land located in the Bibon Swamp.

On occasion, the Department will monitor these parcels for land and/or timber sales, monitor for potential trespass issues, negotiate road, utility and recreational easements or permits and explore for sand and gravel potential. As new parcels are acquired, typically through tax delinquency, the Department will commonly inspect for timber management potential and/or for potential retention and enrollment into County Forest Law.

All of the parcels listed in the Stewardship project (as described above) are part of the other lands owned by Bayfield County. If the project falls through, these parcels may still be considered for enrollment into County Forest Law. Many are also ready for some sort of forest management. In 2015, some of these parcels will be managed, whether as part of the Forest, or as other County owned lands.

### **PARKS**

The management of all Bayfield County parks and campgrounds was assigned to the Forestry Department in September 2010. The four parks and campgrounds include:

1. Twin Bear Campground
2. Delta Lake Campground
3. Big Rock Campground
4. Atkins Lake Park

Since 2010, numerous changes and upgrades have been made to many of the campgrounds. Some of the more significant improvements include:

1. Twin Bear Campground
  - a. Complete electrical rebuild and upgrade throughout entire campground.
  - b. Repair of all major outbuildings and store.
  - c. New fishing pier near the beach area.
  - d. New ADA ramp construction near beach area.
  - e. Creation of new tent camping site.
  - f. Re-establishment of sand beach.
  - g. New individual gas water heaters for each of the three showers.
2. Delta Lake Campground
  - a. Complete re-grade on nearly all existing campsites.
  - b. New playground equipment near beach area.
  - c. New fishing pier.
  - d. Repair of all major outbuildings.
  - e. New electric added to remaining campsites.

All parks and campgrounds undergo routine cleanup of brush and downed trees on a regular basis. Parks and campgrounds are also regularly inspected for hazard trees, which are removed as needed. The removal of hazard trees typically occurs when camping is inactive, usually in the late fall or early spring. Most of the trees are cut up and left on site to be used as firewood. Every year, there will be some removal of hazard trees.

Some anticipated projects or minor repairs needed to the parks and campgrounds in 2015 include:

1. Twin Bear Campground
  - a. Extensive hazard tree removal and overhead branch mitigation.
  - b. Inspection of retaining walls on a few campsites for future repair.
  - c. Re-grade on a few existing campsites.
  - d. New lock settings/keying of all outbuildings.
  - e. Explore the need to add gutters on the cabin store to divert water away from the entrance to the building.
  - f. Explore the potential for two new tent campsites on the hill behind shower building. Develop as funding allows.
  - g. Install new playground equipment in the beach area.
  - h. Install/re-establish speed bumps at multiple locations.
  - i. Install fencing around new electrical box near garage.
  - j. Replacement of numerous old picnic tables.

- k. Transplant trees from hill behind the shower building to the perimeter of the beach to provide future shade.
  - l. Draft and implement a noxious weed mitigation plan for the campground.
  - m. Re-surface the Puig's Point walking trail.
  - n. Remove all coin operated shower regulators.
  - o. Install additional mooring docks.
  - p. Explore the potential for canoe/kayak rentals. Implement as funding allows.
  - q. Install wireless broadband internet, as per the awarded Broadband Expansion Grant.
2. Delta Lake Campground
- a. Add water line to back loop of campground.
  - b. Evaluate the condition of all primitive toilets in the campground. Replace as necessary.
  - c. Re-deck and/or rebuild the ADA access ramp near the beach area.
  - d. Explore potential of tent camping on County owned island.
  - e. Clean up and rehabilitate grounds upon completion of the winter 2014/2015 timber sale, which removed all hazardous trees.
  - f. Replacement of numerous old picnic tables.
  - g. Explore the potential for canoe/kayak rentals. Implement as funding allows.
  - h. Finalize a new lock set/keying of all outbuildings.
  - i. Replace hot water heater.
  - j. Remove all coin operated shower regulators.
  - k. Install additional mooring docks.
  - l. Install wireless broadband internet, as per the awarded Broadband Expansion Grant.
3. Big Rock Campground
- a. Explore the potential of adding a covered pavilion near entrance of campground.
  - b. Minor repair on access roads.
  - c. Explore potential of developing a primitive walking/nature trail within the 40 acre county parcel.
  - d. Replacement of numerous picnic tables.
4. Atkins Lake Park
- a. Replace sign leading into the park.
  - b. Replacement of dock and old picnic tables, if necessary.
  - c. Remove fee tube. The use of the boat launch will now be free at this park.

Numerous unknown issues or projects will undoubtedly surface throughout the year. All unknown issues will be addressed based on significance and/or importance, as time and budgets allow.



## TRAILS AND RECREATION

The management of County recreational trails was assigned to the Forestry and Parks Department in July 2013. Primarily, this involves the management/oversight of all state funded motorized trails located on county and private land. To help accomplish this task, Bayfield County maintains agreements with the Bayfield County Snowmobile Alliance and/or local clubs.

Table 5 displays the total miles and annual maintenance funds received from the State of Wisconsin per trail type:

**Table 5: Mileage and Funding For Trails Managed by Bayfield County**

<b>Trail Type</b>	<b>Miles</b>	<b>Rate/Mile</b>	<b>Total</b>
Snowmobile	437	\$250	\$109,250
ATV Summer	86.75	\$600	\$52,050
ATV Winter	168.15	\$100	\$16,815
UTV	86.75	\$100	\$8,675
<b>Total</b>	<b>778.65</b>		<b>\$186,790</b>

In addition to the routine maintenance performed on these trails by the Alliance and local clubs, below is a listing of anticipated Trails projects or issues that may be addressed in 2015:

1. Re-establish roles and responsibilities with the BCSA, snowmobile clubs and ATV clubs.
2. Update contracts with the BCSA and other clubs.
3. Resolve numerous landowner disputes regarding land ownership and/or trail location.
4. Continue to work, along with the County Tourism Department, on building a supportive network of local Chambers, business owners and community members that will help in the financial and/or logistical support of the Bayfield County trail networks
5. Maintain a database identifying each club and officers, as well as location and mileage maintained for snowmobile and ATV trails.
6. Develop and maintain a database identifying the location and condition of all bridges, culverts, gates and outbuildings on snowmobile and ATV trails.
7. Creating a maintenance/inspection schedule for #6.
8. Develop and maintain a database for all existing permits or easements allowing snowmobile and ATV trails to occur on private land.
9. Development of a database that categorizes the importance of each trail to the overall network/community i.e. high, medium, low. The database would help ascertain the importance of future repair work. For example, a major repair on a trail designated as low importance might not be a high priority.
10. Combine #'s 5 and 6 to determine where to focus obtaining easements or access permits.
11. Update contracts with the Snowmobile Alliance and ATV Alliance or local ATV clubs.
12. Develop updated permit/easement form.
13. Pursue the concept of compensation to private landowners who allow recreational trails on their land.

14. Complete repair work on Trail 1 off Klemik Road.
15. Continue to work on funding a re-route of Snowmobile/ATV Trail 24/31.
16. Continue to work on funding a new privy installation at Trail 22/24 intersection.
17. Install a new clearspan bridge on snowmobile/ATV Trail 3, over the East Fork of the Flag River.
18. Continue to work on funding a new trailhead shelter on Trail 3, near the intersection of Flag Road and the Battleaxe.
19. Finalize plans for a bridge installation on Trail 63 within the Bibon Swamp State Natural Area.
20. Finalize plans for a clearspan bridge over North Pike's Creek on Trail 31/1 near Compton Lane, or find a suitable re-route around the problem area.
21. Compile a list of beaver dam issues impacting trail infrastructure. Coordinate with USDA APHIS Animal Control Services to eradicate the problem animals and destroy associated dam structures.

The above listed items are known issues or projects that need attention in 2015. All or most of the projects that will require significant repair work or new construction/installation will be submitted to the State for funding.

Numerous unknown issues or projects will undoubtedly surface throughout the year. All unknown issues will be addressed based on significance and/or importance, as time and budgets allow.

*Submitted by Jason Bodine, Forestry & Parks Administrator, December 31, 2014.*