

Forest Management Plan Public Comments & Crow Wing County Responses

Date	Name	Comments	Staff Comments	#
10/29/ 2014	Tim J. O'Hara	<p>Minnesota Forest Industries (MFI) is an association representing the state's forest product companies. MFI and its member companies encourage conservation, proper forest management and industry development that foster sound environmental stewardship, multiple uses of timber lands and sustainable, long term timber supply.</p> <p>MFI members include Bell Timber Inc., Boise Paper a Division of Packaging Corporation of America, Hedstrom Lumber Company, Louisiana Pacific Corporation, Minnesota Power, Molpus Timberlands and Management LLC, NewPage Corporation, Norbord Minnesota, Potlatch Land and Lumber, Sappi Fine Paper North America, Savanna Pallets and UPM Blandin Paper Mill.</p> <p>MFI has reviewed the proposed timber management changes presented in the Crow Wing County Output Summary, as created by Applied Insights / Pro-West & Associates. We are concerned over the direction to reduce timber outputs from County managed lands, specifically from the aspen resources. We have several concerns regarding the planning process.</p>	<p>Thank you for reviewing the plan and providing your comments. On July 18 2006, the Crow Wing County Board unanimously approved the Sustainable Forest Management Policy which stated that</p> <p><i>“As the manager of public lands in the County, the Land Department operates on a commercial basis and is required to ensure that an optimal financial return is attained from the use of these managed forest lands. At the same time, the Land Department also has a duty to the people of the county to maintain the recreational and other social values of the forest resource and to protect the long term sustainability of the resource. Sustainable forest management is about striking a balance between economic, social and environmental values in a manner that protects all of these values over time”.</i></p> <p>This important policy statement has since guided Crow Wing County's (CWC) forest management practices, operations and the update of this plan.</p>	1
		<p>The planning effort was not transparent.</p>	<p>The County has been very open and transparent throughout the entirety of the planning process. Since the start of the forest plan revision, the Lands and Forestry Committee has met three times with CWC staff and the consultant team on this project. All of those meetings were posted and given proper public notice. The public is always welcome to attend any of these committee meetings. In addition, two public forum meetings and a comment period were held to give the public an opportunity to provide input to the plan. On two occasions, press releases were sent to four different area newspapers as notification of the forest plan update, the opportunity to provide feedback and participate in the planning process. Lakeland News also covered the project. Notifications were also emailed to at least 80 different stakeholders.</p> <ul style="list-style-type: none"> • March 27 2014 Lands and Forestry Advisory Committee Meeting - Forest Management Plan Update Presentation ProWest & Associates-Applied Insights North. 	2

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			<ul style="list-style-type: none"> • May 28 2014 Lands and Forestry Advisory Committee Meeting - Forest Management Plan Update. • June 13 2014 Press release sent to County-wide media - Public Forum on County Forest Management Plan Update. • June 26 2014 Public Input Forum held to seek input regarding its forest management and land asset management programs. • June 26 2014 Lakeland News runs story on forest plan update. • September 24 2014 Lands and Forestry Advisory Committee Meeting - Forest Management Plan Update. • September 26 2014 Press release sent to County-wide media - Crow Wing County Land Services to Hold Forum and Seek Public Comment on Forest Plan. • October 1 2014 Start of 30 day public comment period for draft forest plan. • October 14 2014 Public Input Forum held on Draft Forest Plan. 	
		<p>The County essentially developed one alternative and presented the plan to stakeholders. This planning effort lacks the rigor necessary to sufficiently address the complications with contemporary forest plan revisions.</p> <p>Typically, several planning scenarios or alternatives are developed with input from an advisory group. As a result of this input the alternatives are modeled and analyzed. When completed, results are then presented back to the advisory group for additional input. I personally attended a plan revision meeting hosted by the County, this meeting essentially presented what the County proposed to do, without any valid input from stakeholders. In fact, this meeting was very poorly attended. The result is a plan proposal that lacks substance and accountability.</p>	<p>The process used to develop this plan was similar to that used by the CWC to develop its previous plan. It is also the same process that has been used by Aitkin, Carlton and Cass Counties. The planning process was comprehensive as County natural resource managers identified 58 different harvest actions on all forest cover types. Queries were developed using criteria such age, site quality, stocking levels and native plant communities. While the model is complex, it was thorough and addressed all key forest management aspects. The model allowed for controlling harvest by year of harvest, intermediate treatments, final harvests and stand conversion by both intentional and natural means.</p> <p>This process focused on achieving a healthy, diverse and resilient forest through a management system that identifies the current</p>	3

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			<p>resource, strives for even flow of harvested resource, is within staff capacity to execute, and respect the needs of various stakeholders. This planning process has been achieved in conformance with the SFI and FSC forest certification standards.</p> <p>Regarding the comment concerning the lack of attendance at the June 26 forest plan listening session, I take that as a vote of confidence from the citizens of this county as they appreciate, understand and support the County's role in managing these forests. In addition, only four comment letters were received during the public comment period for this draft plan, which further validates current forest management practices and strategies.</p>	
		<p>The proposed forest plans recommends a significant reduction in timber harvest from the aspen forest type. This reduction will severely impact the County timber program revenues and economic activity associated with forest management. In fact, the University of MN—Duluth Labovitz School of Business estimates that for every dollar spent on timber stumpage more than \$40 of economic activity is generated. With such a potential decrease in economic activity in the County, the proposed plan should receive more due diligence and assessment.</p>	<p>CWC understands and recognizes the need for a sustained yield and even flow of forest products from the land base. Past performance shows a consistent outflow of products even during a time when the Minnesota's forest industry endured some very difficult economic times. For example, in the last five years, CWC has harvested 2.1% of the timberland acres on an annual basis. This is above the 1.8% average for the 13 member Minnesota counties with land departments. The sale of timber during the year funds the county's management of these lands, while providing revenues to local communities.</p> <p>Due to the concentrated large scale disturbances in the early 1900's and the lack of management in the middle 1900's, CWC has a significant class imbalance in the aspen resource. This proposed plan provides the tool to help natural resource manager's work through this age class imbalance issue.</p> <p>A review of aspen age class distribution clearly shows CWC has relatively few acres reaching maturity in the next 10-15 years. This in part is due to the fact that CWC has been very aggressive in harvesting mature and over mature aspen over the last 25 years. In 2008, the CWC harvest plan was 1655 acres. Since then it has gradually lowered to 1425 acres in 2014. The decline is not just an aspen issue as mature cover types of balsam fir, birch and</p>	4

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			jack pine are not available for harvest in substantial quantities. The county has filled this gap by harvesting more oak acres through intermediate treatments, which allow for multiple stand entries, and higher quality forest products. Oak treatment acres has increased on nearly 200 acres annually since 2009.	
		It is MFIs understanding that the County Land Services Department worked with the U of MN to address forest management options during 2014. The U of MN is highly recognized for the forest planning tools they have developed and utilize these tools to revise forest plans. In fact, the State of MN allocates money to the Interagency Information Cooperative to assist county land managers to develop timber management plans. The U of MN work completed with Hubbard County doubled the County's timber outputs and revenues. Similarly, work with Koochiching County increased timber outputs by more than 40 percent. The value of proper planning is well supported in the decision by the above respective County Boards to utilize state of the art forest planning tools. It is not clear why Crow Wing County did not use the work completed by the U of MN.	In the past five years, CWC has made significant investments towards updating the forest inventory. Accurate forest inventory data is the foundation for sustainable forest management decisions. Since 2009, the County has inventoried nearly 29,000 acres and completed regeneration surveys on nearly 7,000 acres. In addition, CWC has also completed significant work increasing the accuracy of timber stand and property boundary delineations within the GIS system. This project has provided the county with accurate acreage data. This work is meaningful considering the County has approximately 70,000 acres of commercial forest and the importance of having accurate and reliable forest inventory data is vital during this forest management planning process .	5
		It is our understanding that the work of the U of MN showed that the County could maintain higher harvest levels in the aspen forest type and provided the County with higher timber revenues. This alone should raise concern about the process used to develop the proposed plan and if this process sufficiently addressed the management of the timberland resources managed by Crow Wing County for the benefit of its citizens.	The county did work with the University of Minnesota on a forest planning project. The primary purpose was to help CWC land managers learn about the trade-offs that result from alternative management options. The primary focus of the University model was revenue generation from the forest resources base. The major management focus was on the aspen resource. Most alternatives involved varying harvest ages and levels of that aspen cover type. The University's work provided one understanding of the county's resource and management options. This allowed the county to focus development of its management plan on core values without having to duplicate management options generated by the University.	6
		MFI recommends the following: <ul style="list-style-type: none"> • The proposed plan should not be approved by the County Board. The potential gains in economic value and the long-term nature of the plan warrants more scrutiny and assessment. 	See Comment #10	7

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		<ul style="list-style-type: none"> The County Board should appoint a citizen based advisory committee to develop a forest plan. This committee should be broad based and include a member of the County Board. 	<p>The CWC Lands and Forestry Advisory Committee was established by the County Board in 1976. The committee is a 15 member citizen based advisory committee appointed by the County Board. Membership includes two County Commissioners, the County Auditor, four resource professionals and eight local citizen members. The current committee is directly involved in this planning process.</p>	8
		<ul style="list-style-type: none"> Incorporate forest planning tools developed by the U of MN to assist the advisory committee in developing several alternatives that address forest resource management. Several alternatives were already developed during previous work of the County with the U of MN. 	<p>The University's modeling project was presented to the Lands and Forestry Committee on March 27, 2013 and the County received some negative feedback from a committee member concerning the model's heavy focus on economic return. A few concerns were voiced about the 40 year aspen rotation model and increased oak harvest models and its impact on wildlife habitat.</p> <p>The University's model revealed the importance of the red pine resource as red pine growth rates and saw log prices are generally twice that of aspen. In addition, during a recent mill tour, CWC natural resources managers received some very valuable feedback from the plant manager at Potlatch's Bemidji stud mill regarding log sizes for that mill. Because of this feedback, CWC has moved the rotation age for red pine plantations to 80 years as this market does not pay more for larger logs from trees greater than 80 years old.</p>	9
		<ul style="list-style-type: none"> Based on alternatives reviewed, upon agreement by the advisory committee a proposal should be submitted to the County Board for approval. <p>MFI appreciates the opportunity to provide comment on the proposed forest plan of Crow Wing County. We are confident that the proper use of forest planning tools will assist the County in developing a plan that will benefit the economy and forest resources of Crow Wing County.</p>	<p>A review of aspen age class distribution clearly shows CWC has relatively few acres reaching maturity in the next 10-15 years. This in part is due to the fact that CWC has been very aggressive in harvesting mature and over mature aspen over the last 25 years. In 2008, the CWC harvest plan was 1655 acres. Since then it has gradually lowered to 1425 acres in 2014. The decline is not just an aspen issue as mature cover types of balsam fir, birch and jack pine are not available for harvest in substantial quantities. The county has filled this gap by harvesting more oak acres through intermediate treatments, which allow for multiple stand</p>	10

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			<p>entries, and higher quality forest products. Oak treatment acres has increased on nearly 200 acres annually since 2009.</p> <p>Based on the draft plan, all aspen acres greater than age 50 will be harvested in the next 5 years. All aspen acres in the 45-50 year age class will be harvested in the next 5-10 years. Harvesting of the 40-45 year age class would start in 10 years. To offset this aspen imbalance and while trying to maintain a consistent outflow of stumpage to the market, changes were needed and the number oak acres have been increased in annual harvest plans.</p> <p>The aspen resource drives forest management planning in the county as it is 60% of the cover type. Rotation ages from <u>USDA Forest Service Document No 486: Quaking Aspen Silvics and Management in the Lake States</u> support the guidelines for aspen management in this plan. This document states that on good to excellent sites, plan for a rotation of 50-60 years. On average sites, where the major goal is production of pulpwood, a 40-50 year rotation is desirable. On poorer sites, the USDA recommends a 30-35 year rotation if the sites are harvestable and an operable cut can be made. The draft plan recommends a 60 year aspen rotation for the best sites, 50 years on the medium sites and 40 years on the poor sites when there is a quantity of merchantable timber available for harvest. The draft plan does fall within the guidelines of the USDA Forest Service recommendations.</p> <p>Based on further analysis of the University model, the Pro-West model, DNR Subsection Forest Resource Management Plans, the Aspen General Technical Report and plans from other area Counties and large industrial landowners, CWC Land Services will recommend the following aspen rotation ages: Poor quality sites = 40 years, Medium Quality Sites = 45 years, Excellent quality sites = 50 years. These rotation ages will allow CWC to harvest the aspen stands at their maximum biological productivity. On average, this strategy will produce the greatest amount of wood volume over multiple rotations and also allow natural resource managers to manage for species and product</p>	

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			<p>diversity depending on site specific guidelines. This strategy maintains a predictable flow of high quality timber, allows for summer accessible sales which greatly benefiting local logging contractors and area mills.</p> <p>CWC appreciates your comments on the proposed forest management plan and looks forward to continuing to provide natural resource management that supports local economies, protects water and wildlife resources and provides diverse recreational opportunities.</p>	
10/31/2014	Tim Quincer	<p>First I'd like to say I really like the new format, and especially like the shortened "highlights" document. It does a nice job of pulling changes in and describing overall direction.</p> <p>I also really appreciate the formal move towards native plant community based management and use of ECS for management unit boundaries. I believe both changes have the potential to improve efficiency, improve success of regeneration strategies, and ultimately increase revenue from timber operations.</p> <p>Specific comments on the plan are attached. I also attached several documents that I referenced in my comments, which may be of use.</p> <p>Thanks for the chance to comment!</p>	<p>Thank you for reviewing the plan and providing your comments. The single page summaries that describe the management units and the general management focus for each cover type is a very positive format change that will help county citizens understand the primary principles of the plan. Agree the move toward native plant community based management will provide many positive changes.</p>	11
		<p>Please consider the following comments related to the 2015 draft plan:</p> <p>1) I would like to see the plan develop a few more specific strategies in response to climate change impacts on its forest lands. I agree with the plans assumption that moving towards use of native plant communities and a resilience approach can be a successful strategy to deal with impending impacts. I'm not a big proponent of drastic changes in response to climate change. But I do think that choices in species to favor for regeneration; as reserves through leave tree implementation/thinning/TSI operations; and seed trees should be somewhat influenced by information on the impact of climate change on tree species.</p>	<p>The plan addresses climate change with the following language, "With respect to observed and potential future changes in environmental dynamics, the County believes that the use of native plant communities as the foundational framework for management in conjunction with active forest management will lead to a resilient, diverse, and healthy forest that is best suited to adapt to any such changes".</p> <p>The County's approach is bolstered by a recent assessment (Handler, Stephen et. al. 2014) of climate change and its impact on Minnesota's forests provides insights into both the possible nature of future forest management. The assessment concludes</p>	12

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			<p>that “Forest ecosystems in northern Minnesota will be affected by climate change, although systems and species will respond individually to these changes....</p> <p>Overall, we expect forest systems that are adapted to a narrow range of conditions or that contain few species to be more vulnerable to changing conditions. Communities with higher diversity that are adapted to tolerate a wide range of conditions and disturbances have a greater chance of persisting under a range of plausible climates.”</p> <p>Among the potential impacts on forests from climate change the assessment found that “forest communities will change across the landscape”, “forest productivity will increase”, and “boreal species will face increasing stress” while “southern species will be favored by climate change.” It also found that the presence of adaptive capacity factors within forest systems will play a large role in how those systems respond to climate change: “low-diversity systems are at greater risk”, “systems that are limited to particular environments will have less opportunity to migrate in response to climate change” and “systems that are more tolerant of disturbance have less risk of declining on the landscape.”</p> <p>The three forest systems considered by the assessment to be most at risk from climate change are wet forest, forested rich peatland, and acid peatland. Together these three systems cover 17,210 acres (16.6%) of tax forfeited land in Crow Wing County with wet forests being by far the largest component. However, these lands produce little of the county’s merchantable timber, primarily ash, tamarack, and black spruce.</p> <p>Over half (55.5%) of the county’s tax forfeited lands are mesic hardwood systems. The assessment found that “climate change may intensify several major stressors for this forest system, such as drought and forest pests” but “high species diversity may increase resilience for future change.” These forests are “expected to gain in suitable habitat and biomass” with American basswood, sugar maple, red maple, green ash, and bur oak</p>	

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			<p>species increasing; in addition, northern red oak may benefit from change. Paper birch and aspen, both boreal species, may decline. These forests contain a large number of species giving them high response diversity.</p> <p>The assessment found that “hardwood forests occurring on moist, rich soils may be buffered from short-term droughts or seasonal moisture stress” and “warming temperatures may also allow this system to expand into previously unsuitable areas.” Fire-dependent systems, which cover 15.0% of the county’s tax forfeited lands, are “generally tolerant of drought and disturbances and can contain a diversity of species, so these forests have greater adaptive capacity to climate change.”</p> <p>However, the dominant tree species in these forests are expected to decline in suitable habitat; species include jack pine, quaking aspen, paper birch, balsam fir, and black spruce. On the other hand, red pine and white pine will likely “remain relatively constant or experience slight increases as will red oak, bur oak, and red maple.</p> <p>Handler, Stephen et. al. 2014. Minnesota forest ecosystem vulnerability assessment and synthesis: a report from the Northwoods Climate Change Response Framework project. Gen. Tech. Rep. NRS-133. Newtown Square, PA; U.S. Department of Agriculture, Forest Service, Northern Research Station. 228</p>	
		<p>I attached a table suggesting tree species suitability by NPC prepared by our ECS staff that also includes some information on species affinity for warmer and wetter conditions. I also suspect there are other things the county is already doing that could be mentioned in the plan. I attached a menu of common climate change influenced strategies produced by US Forest Service staff that may be of use.</p>	<p>The data in the Suitability of Tree Species by Native Plant Community table was used in the development of Table 20 Strategic Management Opportunities by Tree Species by Native Plant Community. The table shows how the County uses NPC to determine the direction of strategic shifts in acres of specific tree species across the landscape.</p> <p>Section 1.4 Sustainable Forest Management Policy, the use of the Site-Level Forest Management Guidelines directly aligns with the 10 Strategies identified in the US Forest Service document</p>	13

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		<p>2) I noted in several places in the plan drafts where the potential for deer depredation is being used to justify moving towards species that are less favored by deer. I suspect this strategy is influenced by cost of protection strategies and possible re-planting needs. I'd like to encourage the county to consider favoring trees they feel are most appropriate for the NPC and site and seek out funds to assist with protection strategies from other sources, e.g the Lessard/Sams Outdoor Heritage Council CPL grant program.</p>	<p>The County always favors planting the most appropriate tree species on the most appropriated site. This is a primary benefit of the native plant community data. It is only after repeated attempts to plant a site would the county consider a different species like spruce that is less desirable to white tail deer.</p> <p>The County has secured \$180,000 from 3 different CPL grants to restore Jack and White Pine and deal with deer predation issues through the use of bud caps and mesh tubes. In 2015 and in cooperation with MN DNR we plan to aerial seed jack pine.</p> <p>A 12-3-14 report from county staff shows 75% of seedlings on a site along the Dutcher road were damaged by deer within the last 60 days. Deer predation on seedlings is a very serious challenge for CWC.</p>	14
		<p>3) I have a handful of comments on specific direction for cover types in the plan.</p> <p>a. Ash: I support the overall management objective to avoid focus on Emerald Ash Borer. However with EAB arrival looming, I feel we need to develop strategies to successfully regenerate other species in stands with ash. I suggest the county consider opportunities to sell some ash (perhaps together with other offers in adjacent stands to make it more attractive) and develop some experience with regenerating non-ash species in stands where sales won't result in swamping of the site.</p>	<p>Ash: The County has 2,500 acres of ash. 50% of those acres are found on low productivity sites. The County has been able to harvest some ash in the past. Weather and ground conditions over the past few years have made it very difficult to access and manage these stands. High-water levels and deep snow provided serious challenges. If weather and ground conditions are favorable and there is a willing contractor nearby, the county will make every effort to meet the plan's goal.</p>	15
		<p>b. Aspen: I suggest the county start to address the strong age class imbalance in this cover type by adding some stands that are currently just under the typical rotation age into harvest consideration (perhaps towards the end of the planning period). I'd also like the county to consider leaving some larger diameter aspen as reserve trees during BMP implementation in aspen sales and other stands with aspen as a component. We've grown concerned that larger diameter aspen in particular—which ongoing research suggests are very important for some wildlife species—are rarely left standing in sales with an aspen component. While implementing leave tree BMP's, we promote reserving a component of most species existing in the stand, including larger trees where available-- as the guidelines suggest. I've attached a</p>	<p>Aspen: The plan effectively addresses the age class imbalance in Aspen and implementing the Site-level Forest Management Guidelines will provide significant reserve areas, patches and snags for wildlife. Thanks for the fact sheet.</p>	16

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		factsheet developed by DNR which may be of use--it helps lay out the intent of leave tree BMP's.		
		<p>c. Oak: This plan dramatically increases the harvest level in this cover type when compared with past plans. Because oak trees and their mast are such a very valuable habitat component for many species of wildlife, I have concerns that we insure we can regenerate stands back to oak where desired, and that we also leave behind a mature mast producing component through leave tree implementation (such trees can also provide a seed source over time if distributed throughout stands). I'd like to suggest a lower harvest level so the county can insure that its oak regeneration strategies prove successful. Losses in oak volume and \$\$ could be made up by increasing aspen harvest of stands approaching rotation age (as described earlier). Successful oak regeneration may require site preparation and deer protection measures. If money is short for this work, I would suggest the county consider outside funding sources (e.g. LS-OHC funds).</p>	<p>Oak trees are a valuable resource not only for sustainable forest management, but also for wildlife habitat. Crow Wing County adheres to the "Voluntary Site-Level Forest Management Guidelines" (best management practices...BMPs) on leave-tree recommendations. On most timber sales, preferred reserve trees consist of longer lived species such as spruce, red/white pine, and oak. Ideal oak reserve characteristics include large crowned dominant trees because of their superior health and vigor over time. Crow Wing County manages its 105,000 acres of public forestland to the highest level of forest stewardship and is certified as sustainably managed by two of the leading third-party forest certification bodies in the world: the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI). Since 2009, the year of our Department's first forest certification audit, we have never received a corrective action request concerning leave tree requirements. Additionally, our Department performs annual internal field audits to ensure that we are complying with best management practices. Each year, every audited timber sale has complied with minimum leave/reserve tree requirements.</p> <p>From 2004 thru 2008, the average oak harvest was 245 acres per-year. From 2009 thru 2013 that number increased to an average of 410 acres per-year. The increase is attributed to our Department initiating intermediate treatments in oak stands, favoring trees with well-formed crowns within the forest canopy and those with the best stem form. This stemmed from our desire to articulate the benefits of a healthy, diverse forest in a shorter time frame. These treatments consist of harvesting 1/3 and no more than 1/2 of the mature tree species. After harvest, the forests remain a mature closed-forest community with the same ecosystem function as was prior to treatment. The reserve oak trees have not only the best visual qualities, but also are likely to have the best genetics for producing good mast (acorns) that benefit wildlife and also produce good quality future seedlings. Also, remaining mature reserve species will be of good vigor and resist insect attacks and disease. After many years, a future</p>	17

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			<p>summer/fall timber harvest will remove about 80% of standing trees. Full tree skidding will “rake” the soil allowing pockets of mineral soil to be exposed. The result is an open tree canopy and a seed bed with ideal conditions for oak seedlings to establish themselves to create the next future oak forest community. A final harvest will remove the remaining tree canopy, leaving a healthy, thriving young oak forest community with space to grow.</p> <p>The proposed forest management plan also includes specific protections of oak forest communities including converting, on average, no more than 30% of poor-quality oak sites to a conifer-dominated forest and also sensitivities to conversion of poor quality oak forest communities in southwestern Crow Wing County in the Sebie Lake Area.</p> <p>Concerning outside sources of funding, our Department has applied for and successfully received over \$180,000 in CPL grants related to the establishment and protection of tree seedlings. The grant fund’s goals of establishing, enhancing, and protecting wildlife habitat aligns well with potential future support for site preparation and supplemental oak plantings should normal forest management practices to establish oak prove inadequate.</p>	
		<p>d. White Pine: This species is projected to be a climate change winner by a number of different models. I’d like to see the county consider expanding efforts to increase its presence in mixed stands on appropriate NPC’s.</p>	<p>In the last 4 years, the county has planted white pine on 44% of the planted acres. As long as deer predation can be controlled, CPL grants and appropriate native plant communities are available for white pine, the long term goal is to increase this species on the land base.</p>	18
10/31/2014	Gary Drotts	<p>Gary Drotts, retired DNR Brainerd Area Wildlife Manager; natural resource consultant through Gone Wild Enterprises, LLC, October 31, 2014</p> <p>In most places in this plan forest resources are mentioned (e.g. Scope and Purpose, first bullet). While I understand this plan is primarily written to chart a 10 year course for the management of forested land cover types, I would like to suggest that the title of this plan be changed from Forest to Forest Resources.</p>	<p>Thank you for reviewing the plan and providing your comments. Excellent point. The name has been revised to "Forest Resources Plan for the Tax-Forfeited Lands of Crow Wing County</p>	19

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		<p>1.2 Value of Tax-Forfeited Lands I would like to have seen a state statute reference to scope and management of (state) tax-forfeited lands. The statement “lacks any substantial non-County lands” is not totally accurate. The state does own and manage ? acres in this County as noted in Table ?</p>	<p>. “The primary source of legislative guidance is set forth in M.S.282” will be added to 1.2. The state does manage nearly 38,000 acres in the County as identified on Table 4 Whether this ownership is substantial or not, the plan is noting that the economic, social and ecological demands on the County managed land is significant</p>	20
		<p>1.4 Sustainable Forest Management Policy</p> <p>While I complement the Land Department on their broad natural resource scope, the county does not manage all public lands in the County. The statement “As manager of public land in the County..” leads one to believe they do. This and other parts in the plan should read “As manager of County owned/administrated public lands..”</p>	<p>Just to clarify the SFMS policy statement reads, “As manager of public lands in the County...” This policy was written by the Minnesota Counties Sustainable Forest Cooperative- the forest certification cooperative CWC is a member of. The policy was approved by the County Board July 18 2006. The statement is accurate because the County is a manager of public lands.</p>	21
		<p>1.5 Crow Wing County’s Tax-Forfeited Lands in 2114 A lot of wildlife habitat exists on non-forested land, this section should contain at least a passing reference to all land cover types.</p>	<p>Agreed, the nonforest covertypes on county managed public lands like upland and lowland grasses, upland and lowland brush, permanent water non-permanent water, marsh and muskeg all provide habitat for wildlife. Broad generalized cover type data is found in 3.1 Land Ownership Table 6</p>	22
		<p>Strategic Assumptions Sixth bullet: Potlatch’s land base will not stay the same for the next ten years. It will continue to shrink and will be probably down to 0 acres in 10 years.</p>	<p>This bullet point has been change to: <i>The land bases of the two other major forest management entities, the Minnesota DNR will remain relatively unchanged while it is expected Potlatch will continue to sell portions of their land base.</i></p>	23
		<p>2.1 Forest Resource Economic Issues</p> <p>I commend the County for the adjustment/reduction they have made in aspen harvest and the related statements made in this section to note that change in this plan.</p>	<p>The plan effectively addresses the age class balance in Aspen while using the most accurate forest inventory data available. In the past five years, CWC has made significant investments towards updating the forest inventory. Accurate forest inventory data is the foundation for sustainable forest management decisions. Since 2009, the County has inventoried nearly 29,000 acres and completed regeneration surveys on nearly 7,000 acres. In addition, CWC has also completed significant work increasing the accuracy of timber stand and property boundary delineations within the GIS system. This project has provided the county with accurate acreage data. This work is meaningful considering the</p>	24

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			County has approximately 70,000 acres of commercial forest and the importance of having accurate and reliable forest inventory data is vital during this forest management planning process .	
		<p>2.3 Ecological Context</p> <p>I strongly agree with the use of the LTA level of and ecological classification system to resource issues and needs in this plan. Nice touch guys.</p>	Agreed the move toward using Land Type Association and Native Plant Community based management provides a solid foundation and framework for sustainable forest management.	25
		<p>2.4 Watersheds and Water Resources</p> <p>Crow Wing County one of the best water plans in the state. Nice that it is referenced here and under 2.5</p>	Agreed, a healthy, diverse and resilient forest produces clean water.	26
		<p>2.5 Plan Context</p> <p>This section starts with “This resource management plan..”, my point on changing the title to “Forest Resource Management Plan”</p>	Acknowledged, see comment #19	27
		<p>3.1 Land Ownership</p> <p>Table 6?</p>	The data in Table 6 was produced from the County Forest Inventory GIS system.	28
		<p>3.3 Resource by Native Plant Community</p> <p>Nice touch to bring in NPCs, but I assume you used some type of computer model to determine how existing land cover types converted to a NPC types. The term “likely found” covers your bases on this but a note should have been made on how these NPC acres were created and that only on site, detailed inventory work truly ends up classifying a cover type to a NPC type.</p>	<p>The County participated with the Minnesota Department of Natural Resources, USFS Superior National Forest, USFS Northern Research Station/Northern Institute of Applied Climate Science, UPM-Blandin Paper, St. Louis County, Department of Forest Resources University of Minnesota and Natural Resources Research Institute University of Minnesota Duluth on a cooperative project to identify and map native plant communities across Minnesota’s forest lands, and to develop and provide interpretive materials on use of maps to promote sustainable forest management.</p> <p>The specific objectives of this project were to:</p> <p>1) Integrate a suite of geospatial data layers to create NPC maps of the Drift and Lake Plains and Western Superior Uplands ecological sections, with a spatial resolution similar to the Minnesota-Ontario Peatlands and Northern Superior Uplands</p>	29

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			<p>NPC maps and based on the DNR classification of Native Plant Communities.</p> <p>2) In support of the Landscape Committee planning efforts, summarize acreages of Native Plant Communities at the System and Class level by Ownership (MFRC 2010); provide other reports in consultation with Committee members.</p>	
		<p>3.4 High Conservation Value Forests</p> <p>Again, nice work for what's been classified to date. I did not see the large old-growth area we were working on for state and county lands in the Round-Rice Bed WMA?</p>	<p>The county managed tax forfeited lands in section 35 of Bay Lake Township contains approximately 84 acres of mature forest communities dominated by northern hardwoods.</p> <p>The Land Services Department consulted with Dovetail Partners, Inc. to identify 5 existing and 6 "candidate" HCVF forests in spring, 2010 as part of its HCVF identification process. Each category of HCVF was assessed for occurrence with the county. That specific forest community was a candidate, and the decision was made to "defer" designation.</p> <p>However it will continue to be monitored, as HCVF designations can be updated as needed based upon the availability of new information that identifies an area as meeting specific HCVF categories. With respect to its designation as a "Wildlife Management Area" (WMA), the specific goals and strategies of WMAs go beyond the scope of the HCVF standard as set forth by the Forest Stewardship Council forest certification system.</p>	30
		<p>3.5 Habitat</p> <p>Nice touch on the course and fine filter approach. Hopefully over time us Wildlife types can provide some species/habitat information to go with plans like this.</p>	<p>The County would welcome any additional wildlife species habitat information that would strengthen this resource plan.</p>	31
		<p>4.2 Revenue Generation</p> <p>How are state In-lieu of tax payments made to the county and where do they end up? I hope in-lieu payments for tax-forfeited lands are not</p>	<p>The In-lieu of tax payments made to the county are deposited in the Resource Development Fund for use in resource development, forest management, game and fish habitat improvement and recreational developments and maintenance of</p>	32

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		included in this Table 12 under “other” since there is specific statute language on what and how they can be spent.	county administered other natural resources. (MS 477A) All funds are spent per the statute.	
		<p>4.4 Planning and Coordination</p> <p>The 5-year candidate stand list is a great tool. I note here that this is referred to as a “candidate” list as it should be and not a “harvest list” like cover type management tables are noted later on in this plan.</p>	<p>Prepared by County Natural Resource Managers, the 5-year candidate list identifies timber stands ready for thinning or harvest. The list is also a proactive approach by the County to inform neighboring landowners and other forest users of the county’s forest management plans for the next five years. The list can be found as a map layer on the County's Interactive Mapping website.</p> <p>The 5-Year Candidate Stand List has become an important planning tool that provides clear direction on which stands are evaluated for a potential harvest in the next five year period and helps distribute timber harvesting geographically over County managed public lands. GIS and GPS technologies employed by County land managers have increased efficiency and greatly improved the work product.</p>	33
		<p>4.8 Public Land Management Short-Range Goals</p> <p>Legislative: I believe this state should be less than 150 feet, not greater than 150 feet.</p>	MS 282.018 requires that all tax forfeit parcels with greater than 150' water frontage require special approval from the Minnesota Legislature prior to sale. The long term goal is to seek a change in legislation to exempt tax forfeit platted lots from this requirement, since they are subject to local shoreland land use ordinances that regulate uses on such property.	34
		<p>5.1 Land Administration and Classification</p> <p>Nice section but I do not see any reference to acres by classification type. Have I missed something or is this task coming up?</p>	This section is a proactive approach to communicate the procedure to classify tax forfeited lands as conservation or nonconservation. Conservation lands are to be retained for county management and non-conservation lands may be sold. A future task identified as a short term goal in this section is to complete a classification review of all tax forfeited lands.	35
		5.4 Land Leases and Easements Leases: The lease of county land for WMAs is noted later in this plan, but I believe it could be moved up to this section.	Technically the WMA language could be moved to the lease section, but it is better served to remain in 5.7 Cooperative Activities- Cooperative Efforts section, because it is a very good	36

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			example of two local agencies working together to benefit the natural resource and the community.	
		<p>6.1 Recreation Facilities and Trails System</p> <p>Nice touch, thanks as always for including hunter walking trails (non-motorized:summer).</p> <p>Road System</p> <p>Thanks for including the “trail creep” comment. This is not just caused by recreation use. Most loggers have dozer and graders now days. The initial logging trail they put in may be a forest trail to start with, but as other logging goes on farther back in a large land block they keep improving the trail until it becomes a major forest road.</p>	<p>County administered lands deliver many different opportunities for designated managed trails. Thirty eight miles of county managed hunter walking trails are mowed annually to provide a nonmotorized experience for users.</p> <p>Consistent with the Crow Wing County Comprehensive Plan, the Comprehensive Recreational Trails Plan seeks to achieve diverse recreational opportunities that are accessible to people of all ages and abilities, while preserving the County’s high quality natural areas and open space.</p> <p>The Comprehensive Recreational Trails Plan, an objective process and consistent criteria was developed to evaluate trail proposals and designate and manage trails.</p>	37
		<p>Chapter 8.0 Management: Habitat</p> <p>Seems like some of the course/fine filter text noted previously could be moved to this part of the plan.</p>	<p>Habitat is described as a resource in section 3 while the management of habitats is found in Section 8</p>	38
		<p>Chapter 9.0 Management: Landscape Perspective</p> <p>As I’ve already stated, I like this LTA approach and the use of Current conditions and Strategies and Actions.</p> <p>Spring Brook Till Plain</p> <p>I strongly support the need to inventory trails in this unit. As the state classified their forest over the last few years, a lot of unregulated use fell into the Old Grade area.</p>	<p>The Spring Brook Till Plain is a land type association that includes the largest and most contiguous block of county managed public forestland in the County. It is relatively remote and is a popular destination for passive recreation users and hunters. Much of the county’s annual timber harvests occur within this landscape. Forest roads and trails temporarily opened for forest management activities over the last 40 years have created a network of trails that were never intended to serve as long-term recreation trail systems for multiple uses. There is a lack of documented inventory information about where trails are located and which trails should have use restrictions placed on them. As a result, the public is using these unmanaged old skid trails and logging roads for hunting and other recreation activities. Densely packed trail systems have the potential to impact soils and vegetation, cause confusion among users who</p>	39

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			<p>wish to reach a specific destination, and can be poorly monitored. It also makes enforcement more difficult.</p> <p>Recreation trail user groups have been clear in their communication to the County that they prefer designated, managed trail systems. To accomplish this, one of the near-term goals is to inventory existing forest trails and road in a pilot area of Timothy Township, within the Spring Brook Till Plain, focusing on proper designation and signing of managed trails. Other trails will be inventoried but left unsigned and unmanaged. We believe this will concentrate trail use on the designated managed trails and discourage use of “spur” trails. It will improve enforcement, limit potential impacts to vegetation and soils, and provide a better user experience.</p>	
		<p>Chapter 10.0 Management: Forest Resource</p> <p>In general all types look fine. However I have a strong concern with the number of acres that may be treated in the Oak type over this plan period (40%) and projected for the next 10 year period (another 30%). I fully realize that age-class structure is catching up to us in this type, but this type is extremely important as wildlife habitat. I hope to be able to work with County staff over the next few years to see how and where we can do the best for this type.</p>	<p>The County acknowledges the importance of the oak covertime as an important wildlife habitat. Please see comment #17. The County welcomes your invitation to work together over the next few years on oak habitat projects</p>	40
		<p>Cover Type Average Annual Timber Harvest Tables</p> <p>I strongly believe these should be stated as a “Treatment” table not harvest, with treatment meant to include all harvest methods as well as the option to alter, differ, retype, etc. a stand. Most stands include a small percentage that is reserved for buffers, wildlife habitat, retype needs, whatever. If you continue to use a hard harvest goal, you’ll go through more acres that are actually noted in these tables. An example would be oak: to harvest 70% of the oak in the next 20 years you would probably have to treat 80-90% of the total oak base.</p>	<p>Those acres identified in Tables 21a and 21b are inventory acres which are the same as your definition of treatment acres. Internally staff, uses the term "inventory acres" to define the acres identified in the annual harvest plan, noting that actual harvest acres may be lower due to the presence of inclusions, riparian management zones, buffer strips or changes in timber type. etc.</p>	41
10/31/ 2014	Stephanie Foster	<ul style="list-style-type: none"> • Our forest’s primary function is to help maintain the ecosystem: to keep the air, water & earth healthy and have the ability to regenerate 	<p>Thank you for reviewing the plan and providing your comments. Crow Wing County’s managed forestlands are a renewable</p>	42

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		<p>itself. The quality of existence for all life-forms on this planet (... humans, wildlife, et al) depends first on the health of its natural resources. Unfortunately, the past and proposed future “forest management” practices will do nothing to ensure the future health of the forests nor ultimately protect the health of the land.</p>	<p>resource. A sustainable, diverse and resilient forest provides multiple benefits to multiple users including forest products, wildlife habitat, clean water and recreation opportunities.</p>	
		<ul style="list-style-type: none"> • With approximately 70% of the total 105,000 acres of tax forfeit land being forested, and slightly over only 1% being withheld purely for conservation, that means that 99% of forest holdings will be in perpetual harvest. With this large amount of trees being continually extracted, the normal process of nutrient replacement to the soil will never occur. The fallen biomass of the naturally aging forest which has replenished and regenerated the forests for centuries will never hit the ground; it will be harvested instead. Though some harvest practices allow for portions of tree tops, etc., to stay on the land, it is but a fraction of what is necessary to build healthy forests. The long-term nutrient depletion from harvesting eventually turns the woods into a non-renewable resource and will harm their service to the biodiversity. 	<p>The proposed plan calls for the treatment of approximately 2% of forest covertime on an annual basis. The County follows the Site Level Forest Management Guidelines (Best Management Practices). The Guidelines were developed by the Minnesota Forest Resources Council (MFRC) in accordance with the Sustainable Forest Resources Act of 1995.</p> <p>By following these guidelines, coarse woody debris, snag and stumps as well as some fine woody debris (tops and limbs) and brush are retained on the site. The guidelines benefit cultural resources, soils riparian areas, water quality and quantity, wetlands wildlife habitat and restore native plant communities.</p> <p>New research and long term studies show that most of Minnesota soils have adequate nutrients and can endure a large number of rotations without harmful effects. (Grigal, D.F. 2004 An update of Forest Soils. A technical paper for a generic environmental impact statement on timber harvesting and forest management in Minnesota.)</p>	43
		<p>Along with commercialization of 99% of the trees comes the mass destruction to the biodiversity. Every standing dead tree is as important to the biodiversity as a live tree; the older the tree the more valuable it is in death as habitat and a decomposing resource to the food chain for plants and animals. The mass amount of trees put into short commercial rotation harms the entire ecological cycle both in the short- and long-term. The logging sites instantly obliterate the native plant understory which, in turn, immediately kills the ecology that has been developing for years. The repetitive rotations guarantee a downward spiral of diminishing ecological health.</p>	<p>Per the Forest Management Guidelines snags or standing dead trees are left in harvest areas as long as they are not a hazard or safety issue. In addition 5% of the trees are reserved from harvest and either left standing in clumps or scattered over the harvest area. These snag and reserve trees provide many wildlife habitat benefits such as den trees, cavity trees, mast trees and raptor trees.</p> <p>Rotations ages are determined by the silvics of a particular forest tree species. Aspen, birch and maple are short lived trees, have</p>	44

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			<p>shorter rotations while pine, oak, and ash are longer lived and would have longer rotation ages.</p> <p>One intent of timber harvesting is to mimic natural disturbances like wind storm, wild fire or insect and disease outbreak. While wind, fire, insect and disease do not kill the ecology that has been developing for years, neither does timber harvesting.</p> <p>See Grigal D.F. 2004 study regarding repetitive rotations and ecological health.</p>	
		<ul style="list-style-type: none"> Finally, use of “sustainable forestry initiative” standards is a general statement of inferior natural resource management practices. More aptly, it is just a “wolf in sheep’s clothing” purporting to have “strict environmental standards” when in actuality the goal is to extract the most amount of money from the land with the least amount of environmental responsibility without anybody noticing. It’s not land conservation when 99% of the forest is extracted for money. Bottom Line: it’s just a Ponzi scheme being conducted on the forests belonging to a naive and uninformed public. 	<p>Crow Wing County managed forest lands are certified to the world’s two leading independent certification entities, the Sustainable Forestry Initiative (SFI) and the Forest Stewardship Council (FSC).</p> <p>An independent 3rd party auditor, verifies the county’s forest management practices and operations against both SFI and FSC standards. This certification validates to the citizens of Crow Wing county that these forest lands are sustainably managed and will continues to provide multiple benefits for future generations.</p> <p>The certification validates that county forest lands are sustainably managed and will continue to provide multiple benefits for future generations.</p>	45
		<p>It’s clear that the CWC Land Services Dept. serves itself, not the health of the land. Not only does 50% of the revenue go to salaries, but only a small portion is given back to local municipalities and schools. The land was never meant to serve as a capitalistic resource, it was meant to function as a life-support system. Our forests integrity are being corrupted esuriently for money. Ultimately, the “new” forest management plan changes its “form” but does nothing to improve the “content” and future health of our forests and lands.</p>	<p>Much of the county managed forestland was abandoned at one time. Lands were cut over and converted to farms, but thin soils and the hard times during the 1920’s and 1930’s caused widespread tax delinquency. Eventually, these lands were forfeited to the state of Minnesota for nonpayment of real estate taxes. At one point, Crow Wing County had over 250,000 acres of tax forfeited land.</p> <p>In the 1930’s, the management and administration of tax forfeited land was given to the counties by the state legislature. In 1945, County leaders realized the value of the land and subsequently,</p>	46

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			<p>the Crow Wing County Tax Forfeited Land Department was created to manage the land and resources for the benefit of its residents and visitors. The first forest inventory was completed in 1951 and the forest inventory gave land managers a tool to identify and evaluate the available forest resources.</p> <p>Two timber auctions are held each year, a portion of which is distributed throughout the county to the cities, townships, school districts and the county revenue/building fund. More than 3.6 million trees have been planted on these lands in the last 30 years.</p> <p>The County offers multiple recreation opportunities to explore forested lands, lakes and streams. The County manages public lake accesses, designated ATV trails, multi-purpose trails for cross country skiing, hiking, biking and horseback riding and several designated non-motorized trails.</p> <p>A couple of Tax Forfeited Land Sales are held each year and offer for sale parcels designated as non-conservation. Like the revenues generated from the sale of timber, revenues from the land sale support the operation of the program, while surplus dollars are distributed throughout the county to the cities, townships and school districts. No tax levy dollars are used for the operation of the Public Land Management Division within Land Services.</p> <p>Over the last 10 years, \$6.8 million in surplus revenues have been returned to the local taxing districts, thus reducing the tax burden for all county citizens.</p>	
		<ul style="list-style-type: none"> • P.S.—The purpose of MN Legacy Funds was to enhance the environment and natural resources for future generations. When CWC uses Legacy funds to buy replacement seedlings that it intends to later harvest, that's not conservation, that's just capitalistic greed of taxpayer money. 	<p>The County will continue apply for grants that align and fit within the vision, mission and goals of this resource plan.</p>	47

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