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Deal to shut biomass plants angers loggers

Environmentalists and loggers — who are often on opposite sides of issues — are both fighting about a new law allowing Xcel Energy to use clean energy development funds to negotiate a shutdown of three renewable energy plants in greater Minnesota.

Environmentalists object to how the money would be used. Loggers, who first heard of the plan late in the legislative session, are outraged that it could devastate many of their businesses.

"The irony is that this is in the jobs bill, but it's going to cost hundreds and hundreds of jobs," said Scott Dane, executive director of the Associated Contract Loggers and Truckers of Minnesota.

At issue is a provision tucked into the omnibus jobs and energy bill signed by Gov. Mark Dayton.

Xcel is under contract to buy electricity from the plants and argues they need to be shut down because they are too expensive and ratepayers should not have to bear the cost of pricey power when much cheaper alternatives are available.

The plants in question include a small power plant in Benson in western Minnesota that burns turkey manure and wood chips for fuel, and a pair of municipal plants on the Iron Range that were converted to burn wood chips.

Under the new law, if the plant owners and Public Utilities Commission agree to details, Xcel could purchase and decommission the Benson plant and get out early from power purchase agreements with the plants in Hibbing and Virginia.

It all goes back to a 1994 deal between the state and Xcel Energy's predecessor Northern States Power Co. In exchange for permission to expand radioactive waste storage at its



Prairie Island nuclear plant in Red Wing, Xcel agreed to several conditions designed to jump-start possible alternatives to nuclear power in the future.

Xcel decided to use biomass, including wood waste, to meet the requirements of the mandate. This included long-term contracts with Benson Power and its agreement to buy electricity from Laurentian. The new law allows Xcel to end those power purchase agreements early, relieving it of the biomass mandate, as long as the plant owners agree and state regulators approve. Although not specified in law, the shutdowns will also need to be reviewed by authorities who run the regional electric grid. At least 20 logging companies are involved as suppliers, representing hundreds of logging and trucking jobs, and some may go bankrupt with the closures because there is virtually no other market for the wood chips.

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Minnesota Forestry Association

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Away from home for a time? Please contact the MFA office if you'll be away from home for an extended time and let us know when you'll be back. We'll hold onto the newsletter until you return so you won't miss a single issue! Information@ MinnesotaForestry.org or call 218-879-5100.

Biomass plants continued

The Iron Range plants that were owned by municipal utilities in Virginia and Hibbing and operated under the Laurentian Energy Authority were converted. Two other biomass-fueled plants, in St. Paul and Shakopee, are not affected.

"Our members made millions of dollars of investments in good faith to supply this industry, and it's extremely disappointing to see politicians and Xcel renege on their legislative agreement to using biomass," Dane said.

Xcel officials issued a statement that the cost of electricity produced by biomass is the most expensive energy on the utility's system, and costs about 10 times more than wind-generated power.

"We expect to save our customers nearly \$700 million over the next 11 years by removing the biomass energy," Xcel said.

The new law also provides compensation for the cities affected by the future biomass plant shutdowns by authorizing payment of \$20 million to the city of Benson between fiscal years 2018 and 2021 for economic development, and \$34 million over five years to Virginia and Hibbing through Laurentian, "to assist the transition required by the new, amended or terminated power purchase agreement."

The law also authorizes a study to determine the economic effects on suppliers affected by the biomass shutdowns.

Use of the renewable development fund has also raised objections from environmental leaders, including Matt Privratsky, government affairs specialist for Fresh Energy, an advocacy group based in St. Paul. Also a problem, said Privratsky, was that the biomass changes were added to the bill late in the legislative session.

"It didn't have a chance to be vetted in the public eye," he said. "It got slipped in at the end of session and didn't go through a committee for discussion."

Xcel's statement did not address concerns about the renewable development fund, but said that "as this renewable energy experiment winds down, it is important that funds be provided to assist the communities with this transition."

The final outcome also bothered Dayton, who signed the jobs and energy bill but objected in his signature letter to its detrimental effects on the timber industry and to "significantly obligating these [renewable development] funds over the next several years for nonrenewable energy uses."

From "Deal to shut biomass plants angers loggers" in the June 7 issue of the Star Tribune.



Kassandra Tuten is the new editor of *Minnesota Woodlands*

Kassandra Tuten, originally from Albany, Ga., and currently residing in Grand Rapids, Minn., is the new editor of the MFA newsletter, "Minnesota Woodlands." Kassandra received her BA in History, minor in sociology, and women's' studies certificate in 2014, during which time she worked with the National Park Service in her home state. Kassandra has also served as an intern

with both AmeriCorps and the Student Conservation Association, and has worked with a number of other organizations including the Rosalynn Carter Institute for Caregiving and Girls, Inc., of Albany. Currently, she is a staff writer at the Grand Rapids Herald Review in Grand Rapids, where she lives with her significant other, who is a forester in the area.

To contact Kassandra, email <u>Editor@MinnesotaForestry.org</u> or call 229-343-0607.

More on SFIA changes

By Bruce ZumBahlen



It's the bottom of the 9th inning for the home team, our team is behind with no one on base, two outs and the count on our last batter is two strikes and no balls. Not a promising situation, is it? That's what the fate of the Sustainable Forest Incentive Act (SFIA) in the Omnibus Tax Bill looked like as the legislature prepared to adjourn the next day.

But, as MFA's June/July 2017 newsletter reported, that fate was

averted at the last moment when language MFA strongly supported replaced a weaker version of SFIA changes. Now that the SFIA provisions have passed, the Department of Natural Resources (DNR) and the Department of Revenue (DOR) are working out details on its implementation.

Here is a comprehensive list of the major changes:

- DNR will determine the land's eligibility and monitoring for compliance. SFIA enrollees must now register their management plan with the DNR (effective for certifications and applications in 2018). And, DNR will select 10 percent of SFIA properties each year for field visits to verify compliance (effective July 1, 2019).
- DOR will continue to determine landowner eligibility, handle payments, and issue penalties for non-compliance with the covenant. Applications for enrollment have been moved back to Oct. 31 from Sept. 30. On May 15 of each year, each claimant enrolled in the SFIA will receive a certification form that must be returned by July 1 that attests to currently meeting SFIA's conditions and provide a report describing management practices that have been carried out during the prior year (effective in 2018).
- An entire tax parcel is not eligible for SFIA if land contained in the parcel includes:
 - 1. Lands subject to Minnesota agriculture property taxes or subject to agricultural land preservation controls;
 - Gifts in Memory

MFA has a policy recognizing donations made in memory of someone. The proceeds are deposited in MFA's endowment fund so that the gift can continue to grow and the income from that donation will provide support for the organization in perpetuity.

A donation was recently received from Mary Handrick in memory of David Adams. Thank you.

- 2. Acres that are receiving funds under the Reinvest in Minnesota or Wetland Reserve Program.
- There will be three covenant length options now: 8, 20, and 50 years, with higher annual payments for the 20 and 50 year covenants beginning in 2018. Payment rates will be based on a formula that adjusts with the statewide market values and tax rates on 2c Managed Forest properties. A transition period for landowners to request a change in the length of the covenant will run through May 15, 2019.
- SFIA properties with conservation easements enrolled prior to May 30, 2013 will receive a lesser amount under an 8 year covenant; covenants on more than 1,920 acres without conservation easements that are open to non-motorized public access will receive payments on top of rates above.
- Voluntary withdrawal from the SFIA happens after one-half the length of the covenant.
- A parcel may be withdrawn without penalty if a conservation easement is placed on the parcel that is at least as restrictive as the covenant.
- Responsibilities on transfer of ownership of sellers to new owners are clarified; new owners must obtain and register a management plan within two years of the transfer (effective June 30, 2017).
- Penalties for violation of the covenant's terms have been greatly increased. For example: A residential structure built on a SFIA property will be assessed 25 percent of the estimated market value of the property (or 30 percent if due to a change in land use like a gravel pit) as classified by the assessor after the violation plus repayment for the years the land has been bound by the covenant or half of the covenant length, whichever is less, plus interest.

As DNR and DOR finalize details on implementing the new changes, look to future newsletter editions to receive updates.



Creature Feature

By Jodie Provost, MN DNR Private Land Habitat Specialist

White-tailed Deer (Odocoileus virginianus) - Their Ecological Impact on Our Forests

White-tailed deer are one of Minnesota's most socially, economically and ecologically important critters. Their importance stems from their beauty, popularity as a prized big game animal, nutritious venison, useful hides, impressive antlers, and ability to create fun family hunting memories and boost revenue for local businesses and outdoor industries.

However, deer also collide with vehicles, can damage gardens, crops and forest, and contribute to the spread of parasites and disease. In this article, we'll focus on their ecological impact, or how they interact with plants and other animals in their environment. As the Minnesota Department of Natural Resources (DNR) develops the state's first ever strategic, long-term, deer management plan, and our fall deer hunting season approaches, it is a timely topic.

Bounce Back Ability Deer existed throughout the wooded river valleys and woodlands of central and southern Minnesota at the time of European settlement. In northern Minnesota, where forest habitat was much different than today, they were absent or rare. Instead, other members of the deer family were dominant - moose in the north, woodland caribou in the northeast, and elk in the prairie and prairie-forest transition zone.

As settlement cleared forests for lumber and farmland, and large predator populations were reduced by humans, suitable deer habitat and deer numbers expanded geographically, increasing in the north outside of their historic range. But unregulated market and subsistence hunting eventually reduced their population so greatly that by the 1880s, they were rare in much of Minnesota. Regulated hunting and a high reproductive capacity have enabled the population to bounce back well beyond its pre-settlement range and numbers.

Keystone Species White-tailed deer fill the niche, or role, in ecosystems of both herbivore and prey. They are affected by, and themselves affect, their ecosystem. In forests, they have been described as a "keystone species" because their feeding activity can directly and indirectly affect many plants and animals.

Their populations fare best in forests with both diverse age structure and plants, such as aspen, oak and conifer, and in neighborhoods of mixed farmland and forest. Young, early successional habitats with openings, edge and open woodland get the sunlight needed to stimulate deer food.



In spring and summer, they eat grasses, forbs such as wildflowers, mushrooms, and leaves of woody plants. As summer transitions to fall, foods higher in carbohydrates are sought, including acorns, fallen fruits and some crops. In winter, deer browse on woody vegetation such as buds, twigs, young bark, and conifer foliage, particularly liking white cedar, mountain maple, red-osier and other dogwoods, and hazel.

Deer in turn are preyed upon by wolves, coyotes, bears, bobcats, and humans. As victims of vehicle collisions or other unfortunate circumstances, their carcasses also sustain eagles, ravens, crows, magpies, and other birds and scavengers.

Habitat Impacts Our forests face multiple challenges, including conversion, invasive species and a changing climate. No native wildlife vertebrate species in Minnesota has a more direct impact on habitat health than deer. When their numbers approach or exceed the capacity of habitat to sustain them, they pose an additional challenge to our forests and themselves.

Aldo Leopold, known as the "father of wildlife management," wrote in "A Sand County Almanac" (1949), "I now suspect that just as a deer herd lives in mortal fear of its wolves, so does a mountain live in mortal fear of its deer." Their feeding habits and preferences affect the variety, quality and structure of plants in a habitat. When excessive, it harms and changes forests for decades to centuries. Plants that are tolerant to high levels of browsing, or not preferred by deer, can increase and outcompete others. Deer avoidance of white spruce, Pennsylvania sedge and garlic mustard (a non-native invasive) for example, can make them more prevalent and spread faster.

Chronic browsing kills or hinders growth of preferred plants like trillium, ginseng, orchids, Canada yew, oaks, white pine, and northern white cedar, lowering regeneration success and leaving them in low numbers or absent. Add further stress to native forest understory plants, such as invading non-native earthworms and competing invasive plants, and negative impacts are compounded.

Deer also move seeds on their bodies and in their excrement, helping to establish new patches of both desirable and undesirable plants.

Wildlife Impacts A decline in plants, their variety, and habitat quality not only means less food and cover for deer, especially during critical periods such as fawning or winter, but also for other wildlife. Cascading effects extend to insects, birds, and other mammals. Insects' (including pollinators such as bees, moths and butterflies) ability to find the plants needed in their life cycle to feed, rest, hide, deposit eggs, and display, are affected. Very specific symbiotic insect and plant relationships can be disrupted, such as between certain moths and the orchids they pollinate. Nesting sites for forest songbirds in understory shrubs and saplings, as well as the insect supply they rely on for food, can become limited.

Deer also affect other wildlife through their ability to carry and spread disease and parasites. Ongoing research continues to point to deer as a vector for disease and parasites, such as brainworm and liver flukes. These parasites have been significant contributing factors to the poor health and mortality of moose studied in northeastern Minnesota related to the recent population decline. The expansion of deer range into what was historically moose range has increased interaction and transmission of parasites between them. To address this concern, six deer permit area boundaries in the region have changed beginning this fall to better reflect the distribution of deer and moose, allow more fine-tuned management of deer numbers, and enhance management of both species.

Finally, deer numbers also affect other wildlife through their

role as prey. As the primary prey of wolves, wolf populations are directly dependent upon the condition of the deer herd. When deer are scarce or little snow cover exists in winter (allowing deer to more easily run from wolves), secondary prey of wolves, such as beaver and snowshoe hares, may feel the impact as wolves have to hunt harder.

Hunting - Our Best Management Tool To keep our forests diverse and resilient, and their habitats and wildlife healthy and sustained, deer numbers must be considered in the equation. Public hunting is our primary tool for managing our deer numbers, with the goal of maximizing their positive impact while minimizing the negative.

The most significant influences on our deer numbers are currently hunting season structures, regulations, quantity and quality of habitat (such as sufficient browse and conifer cover in winter), and severity of winter weather (snow depth and duration). As landowners and/or hunters, we can do our part by allowing hunting access to our land and harvesting adequate numbers of antlerless deer. As part of our natural and hunting heritage, deer should remain valued and managed wisely. Both short and long term, we will be glad we supported the collective functioning of our forest parts for sustainability of the whole. Wishing you a safe and memorable deer season with family and friends!

For more information on deer management and the deer plan under development in Minnesota, see the DNR whitetailed deer management web page.

Thank You to Adam Murkowski, DNR big game program leader, Andrew Norton, DNR deer project leader, and several other natural resource specialists for review of this article.



White-tailed deer are described as a "keystone species" because their feeding activity can directly and indirectly affect many plants and animals.

For MFA members, the two best online sources of woodland information are the MFA website at www.minnesotaforestry.org, and the University of Minnesota Extension Forestry website at www.myminnesotawoods.umn.edu.



Fillmore SWCD Forestry Field Day: Using fire for vegetation management

On July 26, the Fillmore SWCD held its 7th annual Forestry Field Day at Forestville State Park. This year's theme, "Using Fire for Vegetation Management (without calling 911!)" focused on comparing regularly burned woodland with areas that have not had fire management, evaluating the benefits burning has for local wildlife, creating a firebreak, understanding the permitting process, and more. Between 50 and 60 guests from southeastern Minnesota enjoyed a light supper beginning at 5:30 p.m. with the main program at 6 p.m. The meal was provided by High Point Realty and door prizes by the Minnesota Forestry Association.

Jim Edgar (DNR Forester), Mitch Gilbert (Private Forestry Consultant), Jake Froyum (DNR Forester), and Mark White (Park Manager) each gave brief presentations before the guided walking tour. As hoped, the rain held off during the tour and guests had the opportunity to hike a trail of Forestville State Park. Foresters showed the differences in the amount and type of vegetation along different parts of the trail depending on how many years each specific area had been burned. The south-facing bluffs are beginning to display a return of native prairie species and oak savanna that was part of the landscape before European settlement and fire suppression began. Bill and Mary Bailey of Chatfield provided a slide show about the forest management practices on their farm that the guests could view at their leisure. Mary also spoke about the Bluebird Recovery Project for which she is the coordinator in Fillmore and Olmsted counties.

The prescribed burning topic was a huge success, and guests felt they had gained a lot of valuable information from both the handouts and guest speakers. When asked how each guest heard about the field day, 32 percent had received a postcard in the mail, 41 percent read about it in the newspaper, nine percent from word of mouth, and the final 18 percent included social media/email/other. The feedback was overall very positive and it is likely that many people will return for the Forestry Field Day again next year.









Meet a Tree

Blue Beech



Dennis Thompson

By Dennis J. Thompson

Blue beech, or American hornbeam (Carpinus caroliniana), is a small, slow growing tree that is a common understory species in mesic hardwood stands throughout north-central Minnesota. The short, often crooked trunk covered with a smooth slate gray bark is characteristically rigid, resembling the muscles of a flexed arm. Because of this, the tree is often referred to as musclewood. Blue beech is commonly found in valleys and along the borders of streams and swamps. It does best on deep, rich, moist soils. Blue beech can persist for 100 to 150 years, but remains small with an average height of 20 to 40 feet.

Blue beech is very shade-tolerant and one of a few species in both northern and southern forests whose abundant reproduction assures its replacement in

stands across a wide spectrum of sites. In forests managed for commercial timber production, blue beech may be considered a weed and discriminated against in stand improvement. Blue beech wood is close-grained, very hard, and heavy, but because the tree is so small, it is rarely harvested for the manufacture of wood products or sawed into products.

The orange and scarlet coloration in the fall makes blue beech an attractive ornamental tree. However, it is not widely used because it is difficult to transplant and does not do well on exposed sites. Seeds, buds, and catkins from blue beech are eaten by a number of songbirds, ruffed grouse, pheasants, turkey, and gray squirrels. Leaves, twigs, and larger stems are consumed by cottontails, beaver, and deer.







Boots on YOUR Ground Program

For payment of just \$50, landowners can have a 2-hour walk on their land with a forester. The program is currently limited to MFA members statewide and, thanks to the Blandin Foundation, to anyone in Itasca County who owns 20 or more acres of woodland. Review and print an application.

Upcoming Events

Find more events, and more information on these events, at the MFA website, <u>www.MinnesotaForestry.org</u> or by calling MFA at 218-879-5100.

MFA: Controlling Invasive Forest Plants Saturday, Oct. 7, 10 a.m. - 12 p.m.

Pinehurst Park, MN-33, Cloquet, Minn. 55720 Sponsored by the Minnesota Forestry Association, Kettle River Chapter and Carlton SWCD. Instructor: Kelly Smith. \$10 per person, \$15 per group or family. To register, contact Cloquet Community Education, at 218-879-1261.

European Earthworm Invasion: Its Interactions with Invasive Plants and Deer

Tuesday, Oct. 17, 6:30 p.m. - 8 p.m.

Duluth City Hall Room No. 303, 411 West 1st St. Duluth, Minn. 55802

The Duluth CISMA has brought in Dr. Lee Frelich. His presentation will take place at the CISMA October Partner Meeting. The public and CISMA partners are invited to attend.







Pollinator Workshop

By Kelly Smith

Kettle River Woodland Council, an MFA chapter serving roughly Carlton and Pine Counties, held a workshop and tour on establishing pollinator habitat on August 26 in Cloquet. Presenters Vicki Anderson, Bob Nelson, and Kelly Smith shared their experiences establishing flowers, forbs, and shrubs that benefit pollinators. The group discussed the importance of pollinators, and how to establish habitat yourself or with help. Thanks to sponsors MFA, Cloquet Community Education, Carlton SWCD, and Zion Lutheran Church.

