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Green Timber Tree Farm Group

Green Timber Consulting Foresters, Inc.

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2017– Jim and Pam Grundstrom
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2019– Sampo Club

2019 Green Timber Tree Farm Group Member of the Year: Sampo Club

The Sampo Club is a hunting club with a very rich tradition of conserving and promoting the natural resources on the property they own. The club, which was organized by a group of Finnish hunters on November 1st, 1941, encompasses 1,480 acres located southeast of the town of Gwinn, Michigan. From its conception, the primary goal of the membership, as stated in its initial constitution and bylaws, is to, "practice conservation of all wild game by the cooperation of its several members." Over the years the goal of conserving wild game has developed into the conservation of habitat for the betterment of all wildlife species.

Portion of the area sheared to improve yellow-winged warbler habitat.

Aspen cut with snag retention to diversify age class for improved grouse habitat.

The Sampo Club has displayed their commitment to sustaining and promoting habitat and wildlife populations in numerous ways. First and foremost, all members are committed to only the lawful methods of bagging game. This commitment was demonstrated in 1943, when the membership voted unanimously to provide the local conservation officer with a key to the main access gate to enable practical enforcement of hunting regulations on the property.

More recently, the Sampo Club has worked diligently to sustain and improve the health and diversity of habitat on the property. Marbled with a mixture of dense swamps, upland hardwoods, aspen, and pine, the Sampo Club is rich with habitat diversity offering much opportunity for improvement work. One of the main goals is to maintain forest health by promoting vigorous and resilient growth of the timber resource. This goal has been met through the implementation of the forest management plan that was developed for the property in 2015. Since then, the Sampo Club has completed one timber sale and two additional sales are under contract for 2019-2020 cutting. These timber sales have been designed to focus on areas of the property where tree growth has stagnated due to over crowding and to diversify the age classes of aspen on the property, which will be beneficial to grouse and other wildlife species. To further diversify habitat, the membership has embarked on tree and shrub planting projects across the ownership that will provide high quality food and cover for a variety of wildlife species. Planted trees and shrubs include red oak, hawthorn, serviceberry, nannyberry, and ninebark. The club members have also diversified the lowland brush habitat by shearing approximately 12 acres of tag alder spread across two locations. This has helped to improve habitat for the yellow-winged warbler.

Healthy hardwood forest with a vernal pool in the foreground.

The current membership understands that conducting sustainable management and habitat improvements are vital to the long-term success of the Sampo Club. Doing so will provide quality hunting and wildlife viewing opportunities which will help future generations make the connection between sound habitat management and healthy wildlife populations. This connection to the land stimulates member interest, creates memories, and fosters a long-lasting legacy, all of which are of upmost importance to the Sampo Club.

From the Group Manager

The Green Timber Tree Farm Group is in its 12th year of existence. How time flies! Over the years, one over-arching theme has developed – consistency. Growth of the group has been stable and consistent. All audits, external third-party as well as internal, have shown positive results. This consistent high quality is a result of the high level of commitment we and our group members put towards achieving each member's individual goals and objectives.

Achieving defined goals and objectives is the way most landowners measure the success of their land management activities. However, first defining goals and objectives and then assessing whether they have been met through the implementation of management activities is not always easy. All of our group members have given some thought to what their goals and objectives are for their properties however, landowner goals and objectives often evolve over time. The evolution of one's goals and objectives may be caused by a number of influences such as the purchase of additional acreage, forest health issue, weather related impact such as fire or windthrow, and a whole host of other factors. It's important to revisit these goals and objectives periodically and when needed, update them accordingly. Your forest management plan was designed to be active and adaptive, therefore, as your goals and objectives evolve so can your forest management plan.

The best way to inform us of changes in your goals and objectives is to detail them on the Annual Membership Inquire that is included with this newsletter or contact me directly. Below is more information on defining property goals and objectives.

Management goals are the broad outcomes one would like to accomplish. They describe the big picture and set the long-term vision. Goals for a woodlot might include the following:

- Maintain the health of the forests, wetlands, and natural ecosystems on the property
- Have a financially sustainable or profitable investment
- Provide high-quality habitat for diverse wildlife species
- Enhance opportunities for recreation
- Protect and maintain water quality

Management objectives are more specific actions that support the completion of a goal. Using a house analogy, your goals form the foundation that you build on, while the objectives are the walls and roof that form the shell of the house. As much as possible, objectives should be SMART:

Specific: Be clear in describing what needs to happen to help achieve the broader goals identified.

Measurable: Include metrics that will help you determine whether the goal has been met.

Achievable: Be realistic, breaking big actions into several smaller steps if needed.

Relevant: Connect objectives to one or more of the broader management goals.

Time-bound: Specify a date or timeframe for accomplishment, which could either be a deadline for accomplishing an action or something that is repeated continually throughout the life of the plan.

Giving some thought to your goals and objectives, evaluating and revising them over time, and communicating any updates to us will ensure that we as your land management professionals help you to consistently achieve the maximum satisfaction from your property.

Rexx Janowiak
Group Manager

Michigan Predator Prey Project

The Michigan Predator Prey Project is currently in the final year of data collection. This study is a cooperative endeavor between the SUNY College of Environmental Science and Forestry, the Michigan DNR, and the Safari Club International Foundation. The study has been investigating the role of predators, winter weather, and habitat on white-tailed deer fawn survival in the western Upper Peninsula of Michigan since 2009. The project was initiated near Escanaba and moved north every 3.5 years, first to Crystal Falls and now finishing up in the Ottawa National Forest near Pelkie. This allowed researchers to track how changing predator densities, habitat compositions, and winter severity may affect the deer herd.

White-tailed deer with a radio collar

Throughout the project researchers have been capturing and collaring white-tailed deer does and fawns, black bear, wolf, coyote, and bobcat to better understand deer mortality sources and the spatial relationships of their predators. Additionally, population estimates have been performed each year on these species as well as beaver, ruffed grouse, and snowshoe hare, which may influence the deer herd as alternate prey for predators.

To learn more about the study and access reports and publications regarding the ecology of some of the UP's large mammals please visit: https://campfirewildlife.com/projects/predator-prey/ .

Birdseye Maple

The following is an excerpt from an article that appeared in the 2019 edition of the Association of Consulting Foresters' Journal The Consultant. To read the full article, go to https://tinyurl.com/yyu2uwb7.

On the rocky hills along the south shore of Lake Superior grow some of the most valuable trees in North America. Oftentimes, early loggers and lumbermen would find a tree with this "defect" and either leave it in the woods, or burn it as firewood. In later years, the wood gained some dignity and was elevated to the status of flooring that was often covered with carpeting or other synthetic materials. All the while, a small number of people with unique tastes recognized the beauty of this wood and selected it for special uses. Local lore holds that the lumber and mining baron John Munro Longyear had a birdseye maple bowling alley in his mansion in Marquette, Michigan. In the latter half of the 20th century, birdseye maple came into favor for specialty products and is now prized by woodworkers and collectors. Buyers from as far away as Europe and Japan frequently travel to birdseye country in search of prime veneer logs to export to craftsmen around the world. Birdseye veneer can be found in a range of high-end products including the interior trim on Jaguar cars and fine Italian jewelry boxes. One Japanese buyer has developed a method of slicing veneer that produces sheets as thin as .17 millimeters (the U.S. standard is .8 millimeter). This allows for up to 130 sheets of veneer to be produced per inch of wood!

Although prized by woodworkers, birdseye is also a formidable challenge for even the most skilled craftsmen. The changing grain direction imparts a high potential for warping when the wood is dried. Each "eye" is essentially a knot in the wood. This requires that those working with birdseye always have sharp tools or else the eyes may pull out of the wood and create pits. At the same time, the highly variable grain direction rapidly dulls tools meaning that maintaining sharp tools is a constant battle. Sanding is also a critical part of the process in order to create a perfectly smooth finished product.

The birdseye (also known as bird-eye and birdeye) figure is a grain pattern that is most commonly associated with sugar (hard) maple (*Acer saccharum*) however it can be found less commonly in a number of other species. The UP of Michigan, particularly areas in the Lake Superior watershed, is widely regarded as the source of the best birdseye maple in the world. In addition to the figure being more predominant here than in other parts of the range of sugar maple, lumber produced from sugar maple in the UP often has the most desirable appearance due to its light color and dense grain pattern.

Marketing Birdseye

Foresters and loggers in the UP are familiar with the areas where birdseye most commonly occurs. When harvests take place in these areas, there is much speculation regarding the potential of finding that rare log. Consultants are careful to closely monitor log decks in areas known to produce birdseye in order to ensure that landowners are fairly compensated for such products. Contracts may include a stipulation that birdseye be sorted and if it is sold as a specialty product, the landowner is entitled to a percentage of the value - even on lump sum sales.

Buyers from around the world come to the UP to purchase birdseye logs, lumber, and veneer for a wide range of uses. Birdseye logs have reportedly commanded prices as high as $100,000 per mbf in rare cases, with prices in the range of $20,000 to $40,000 per mbf being more typical (standard hard maple logs typically sell for $400-$600 per mbf). Buyers of birdseye logs consider many characteristics of the log when bidding on them. In addition to assessing the density and size of the birdseye throughout the log, buyers also assess the presence of knots, heart size, uniformity of growth rings, and straightness. A prime veneer birdseye log will have no knots, a small heart, consistent and generally small growth rings, and will be perfectly straight. Birdseye is one of the only products in the UP that may be purchased in lengths of less than eight feet.

What Causes Birdseye?

Despite the high value of birdseye, and the effort that goes into identifying and marketing it, there is little conclusive evidence of the source of the figure. Early on, birdseye was thought to have been a deformation that simply resulted from damage by woodpeckers or sapsuckers, but that theory has been largely discredited. Although there may be some genetic factors at play, attempts to propagate new birdseye trees vegetatively have been unsuccessful, which points back to environmental factors. Gene Arntsen has observed trees that exhibited birdseye figure early in their life, then after a thinning, the annual growth increment increased and the birdseye disappeared. As the stocking of the stand increased, the growth rings would become smaller and the birdseye would reappear, however trees growing nearby on the same site and in the same conditions exhibit no birdseye indicating that there is some genetic influence to the occurrence of the phenomenon.

Looking to the Future

There has been an observed decline in the volume of birdseye harvested from the region. It is thought that improved forest management focused on maximizing the volume of quality maple through periodic thinnings is at least a part of the cause. The thinnings release the trees from stressful, dense growing conditions and appear to reduce the expression of birdseye. This would seem to be supported by the observation that trees with birdseye no longer produce the figure following a harvest. Management of low- to moderate-quality hardwood sites in the UP, particularly by industrial landowners, has shifted to promoting the growth of aspen and softwoods. These species are more productive in terms of tons per acre, however some sites that have been converted from hardwoods may have also been potential birdseye-producing sites. Birdseye items are often seen as heirlooms and will likely continue to be sought-after for years to come.

An Eye on the Market: Golden Sand

With annual local precipitation levels being well above average for the past three years and six months, well drained soils and solid roads are continuously becoming more attractive to timber buyers. “Light” or well-drained soils have a significant component of sand in them which allows water to pass through much quicker than “heavy” soils. This percolation of water enables acceptable logging conditions during wet periods of the year.

Logging access via solid roads is also a favored trait when selling and cutting timber. Roads that have been built up with rock and gravel shed water and can sustain heavy truck traffic even during wet seasons. These roads enable trucking during periods of time when many other roads are impassible. This fosters wood flow, which is valuable to producers and mills.

Green Timber, Inc. advertises and sells standing timber on behalf of our clients. We also develop valuation reports for standing timber located on client properties. In this context, timber value is typically reported as “stumpage”. Stumpage value is calculated by starting with the delivered mill value of wood products, then subtracting the typical costs of production and delivery including minor road work, cutting, producing, skidding, and trucking the same wood products. Increasingly over the past three years, consideration of access conditions to harvestable timber and the soil characteristics of corresponding properties has become equally or in many cases, more important than the quality of timber itself while determining stumpage value.

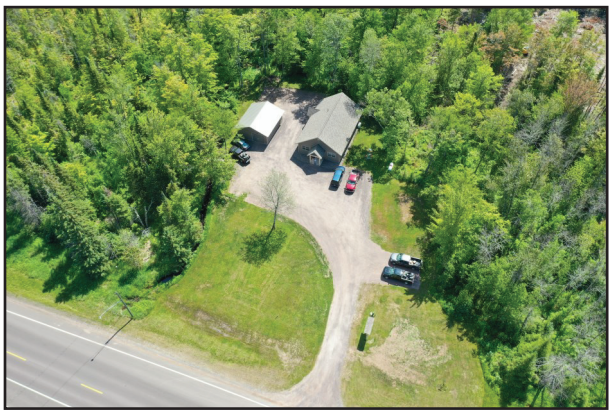
Stumpage value is not the only benefit to selling and cutting timber located on light soils with access via solid roads. We have been experiencing a drastic difference in buyer interest and operational schedule with timber sales having these favorable attributes. Timber sales with these conditions that are competitively bid have had remarkably more bids than sales located on wetter sites even if the wetter sales involve better timber quality. Additionally, the timber sales that are located on drier sites will commonly be harvested during the first acceptable logging season in the contract, whereas the wetter sales may take three or more seasons to complete.

So, in multiple ways owning timber on light soils with solid road access is valuable and can be very lucrative in our current climate and timber environment. Those landowners not fortunate enough to have such soil and access conditions on their property are not out of luck however. Timber located on heavy soil or with wet/sensitive access can and is still being sold and harvested. It is just not expected that these conditions will lend themselves to premium stumpage values and quick turnarounds on harvest schedules. In many cases, we have been negotiating these sales with likely buyers and have been offering wider operational periods to stimulate interest and buyer confidence. Please feel free to contact Green Timber, Inc. if you have questions about your timber and its value in the current market.

Green Timber Now Offering: DRONE SERVICES

Small Unmanned Aerial Systems (UAS), or drones, have greatly increased in popularity from both a recreational and professional standpoint over the past ten to twenty years. From a recreational standpoint, people use drones to capture stunning video and photo images from viewpoints previously inaccessible. Plus, they take all the childhood fun of driving a remote control car and make it airborne! The professional uses of drones are extremely wide ranging, depending on the line of work. For example, many real estate companies now use drones to capture images or videos of the houses they are selling. Energy companies use drones to inspect infrastructure once only accessible by scaffolding. Additionally, companies have begun using larger drones for pesticide applications or seed dispersal. Drones are now completing tasks that previously required an airplane or helicopter, only now with the mobility found in something a few square feet in size.

Green Timber has now added drone usage to our list of services. We envision drones being helpful in the property inspections we do, especially those areas with challenging terrain. The drone’s attached camera will offer the capability of taking high resolution property videos and still shot photos of landmarks of interest. Through GPS and GIS technology, images of a property collected by the camera can be mosaicked together into a very high resolution, real-time map. The maps Green Timber currently produces for management plans and other projects use one meter resolution satellite imagery available online. The maps we are now capable of creating use an image resolution in the range of one to two inches, or even less!



The collection of video and photos in the visible spectrum is only the basics of drone usage in forestry. Past, current, and future research continues to take place, with drones now doing the tasks once only capable through airplane or satellite. Thanks to the very high level of resolution at a very close proximity, research is showing drones and their cameras capable of being able to conduct tree species recognition and various measurements used to calculate forest biomass volumes. Drones carrying multi-spectral cameras are capable of capturing measurements used to determine vegetation health and productivity. These forestry applications and so many more are still in the developmental stages. Excitement continues to build over the increasing possibilities of being able to collect and analyze specific data of interest once only broadly accessible via satellite.

If you are interested in understanding how Green Timber’s drone services can be applied to your property, please contact Shane Kleiman at (906) 353-8584 or shane@greentimberforestry.com.

Qualified Forest and Commercial Forest Programs

You may have heard some recent hustle and bustle concerning the Michigan tax incentive programs related to forestry, the Commercial Forest Act (CFA) and the Qualified Forest Program (QFP). The purpose of these programs is to help incentivize private forestland owners to manage their forests and support Michigan's forest industry. Michigan's forest industry contributes as much as $21.2 billion to Michigan's economy and provides more than 99,000 jobs. In Michigan, private landownership accounts for more than 11 million acres of forestland, which is about 55 percent of Michigan's total forested acreage. This being said, privately owned forestland has the capacity of contributing a significant amount to Michigan's economy and to keep the flow of wood moving. Below is a summary of the two programs.

Qualified Forest Program

The QFP was originally introduced in 2006, to accommodate owners of forested parcels that did not wish to allow public access, which is a requirement of the Commercial Forest Act. The QFP was built to accomplish the same goals as the CFA, requiring landowners to actively manage and harvest timber from their property in exchange for a tax break. The tax break was not as significant as with the CFA, but it allowed landowners to keep their property closed to the public, which provides the privacy and solitude many landowners seek from their forest. The program went through a major shift in 2013, where the administration shifted from Michigan's Department of Natural Resources (MDNR) to Michigan's Department of Agriculture and Rural Development (MDARD). This shift also had a laundry list of program changes that attempted to make the QFP more useful to a wide base of landowners. Since then, MDARD has determined portions of the existing legislation that could be modified, enhancing the program's objective. The most pertinent changes for most private landowners effective March 29, 2019, include:

- A provision was made to allow for multiple parcels, rather than only one, to be placed on an affidavit. This provision reduces the landowner costs for recording the program affidavits at the Register of Deeds.
- The 640-acre cap per tax collecting unit, per owner, has been removed. This means that if you were unable to enroll all your forestland into QFP in the past due to the acreage cap, you can now enter any remaining acreage you would like.
- Landowners who remove property from the program must now do so through MDARD within 90 days of electing to do so. Failure carries a penalty of $5 per day up to $1,000. Landowners will still have to pay the recapture tax if they choose to remove all or part of their qualified forest property from the program.
- Clarifies the definition of harvest. Cutting, severance, or removal of timber for firewood, fence posts, or other personal use is not considered a "harvest" for the purposes of complying with QFP.
- Clarifies that landowners may construct a residence on enrolled land but building footprints must be collectively less than one acre and are not subject to the tax exemption.

"Productive Forestland" is now described as follows:

Real property capable of growing not less than 20 cubic feet of wood per acre per year. The term includes real property on which there is a tree density that meets at least one of subparagraphs (i) to (iv), as follows:

- At least 200 seedlings per acre
- At least 100 saplings per acre 2 to 5 inches in [DBH]
- At least 3 cords per acre of conifer species 5 to 9 inches in [DBH] or all other species 5 to 11 inches in [DBH]
- At least 1300 board feet per acre of conifer species at least 9 inches in [DBH] or all other species at least 11 inches in [DBH]

The stocking density requirements apply on a per [tax] parcel basis and cannot be achieved by averaging density across multiple [tax] parcels.

Commercial Forest Act

The Commercial Forest Act provides a more substantial tax break for private forest landowners, but restricts any structures on the property and requires the property to be open to the public along with managing the timber. The current tax rate for CFA land is $1.30 per acre and will rise by five cents per acre on January 1, 2022. This rate is scheduled to continue to be increased by five cents per acre every five years thereafter.

CFA has not gone through any major program updates, but the program was audited recently and it was found that about 600 landowners enrolled in the program were out of compliance due to out-of-date management plans. The DNR notified these landowners in the fall of 2018 that updated management plans were due by June 1st, 2019. This created a bit of a panicked rush by landowners and foresters alike to accomplish this goal. We hope this process has shed some light on the dusty program and that all parties involved can move forward with lessons learned. Please be diligent in following your management plans and keeping it up to date to the best of your ability.

Green Timber, Inc. can help you navigate these changes to ensure that you meet your goals. We are qualified and approved to write management plans meeting the QFP and CFA requirements. We can also assist you in securing cost share funding through the Forest Stewardship Program (FSP) or the Natural Resource Conservation Service (NRCS).

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Michigan Tree Farm Annual Celebration

The "Michigan Forest Celebration" will be in Grand Rapids on September 13-14, 2019. This event is the annual meeting for the Michigan Forest Association and Michigan Tree Farm. The presentation will focus on urban forests in Grand Rapids on Friday, September 13th. There will be a banquet dinner at the Downtown Market on Friday evening. Space for the dinner and awards presentation is limited to 180 people. The Michigan Forest Foundation will be offering a 75 percent discount for the first-time attendees. On Saturday there will be tours of Tree Farms in Sparta and Rockford. More information and registration forms can be found at www.MichiganForests.org . Contact Nick Sanchez at nick.sanchez@macd.org with any questions.

New Employee Highlight

Justin Martinchek joined Green Timber in September 2018, after graduating from Michigan Technological University with a Master of Forestry Degree. As a student, Justin gained forestry experience through an internship with Weyerhaeuser. At Weyerhaeuser, Justin's primary duties consisted of establishing harvest boundaries and identifying and delineating riparian zones. Justin also performed regeneration surveys and participated in timber harvest administration, inspection, and site preparation. Since joining Green Timber, Justin has continued to gain experience in multiple aspects of forestry with a focus on cruising timber and forest management plan development. Prior to entering the forestry field, Justin served in the US Air Force as a firefighter. He was stationed at Minot Air Force Base in North Dakota, and Al Dhafra Air Force Base in the United Arab Emirates. Justin's interest in the outdoors began when he was a child and would spend time in the woods of the Northern Lower Peninsula, hunting with his dad and grandpa. In his free time, he enjoys hunting, fishing, working with his tractor, cheering for Michigan athletics, and spending time with his family and friends.

Jack Zwart joined the full-time staff of Green Timber in May of 2019, after graduating from Michigan Technological University (MTU) with a B.S. in forestry. Before joining Green Timber full time, Jack worked as an intern while finishing his senior year at MTU. Jack gained other experience as an intern working with another consulting firm and spent time in a research position with the U.S. Forest Service. He has knowledge in timber marking, forest inventory, and soil sampling. Jack is originally from Poplar Grove, Illinois, where he grew up hunting, fishing, skiing, and spending time with family.

Left to right: Justin Martinchek, Ed Hodges, and Jack Zwart

Ed Hodges joined Green Timber as a field forester in May of 2019, after graduating from Michigan Technological University with a B.S. in forestry. Prior to his graduation, Ed gained professional experience as an intern for the Michigan Department of Natural Resources in Baraga, Michigan. His responsibilities as an intern primarily included timber marking, cruising, running lines, and active harvest administration. This experience as an intern allowed him to better familiarize himself with forestry practices in the Copper Country, and gain real-world experience working with logging crews on active harvests. Born and raised in Dexter, Michigan, Ed grew up hunting and fishing, to which he still does today. Although he enjoys all types of outdoor activities, waterfowl hunting consumes the majority of his free time during the fall.