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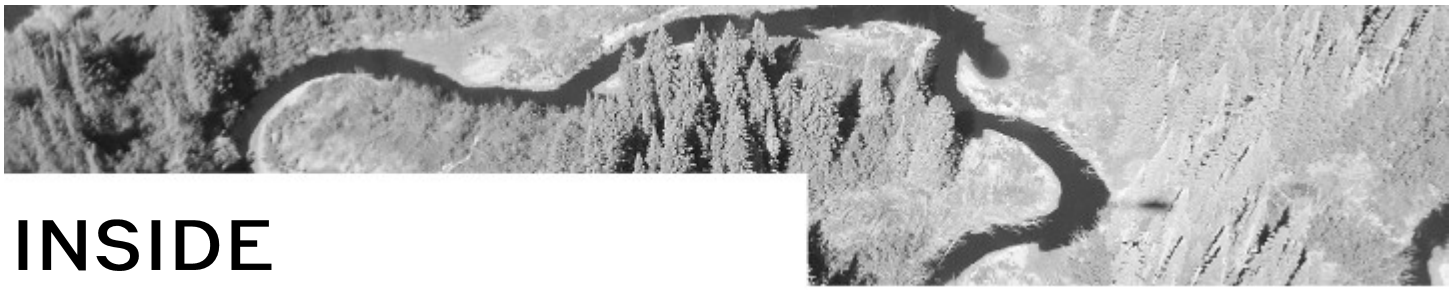
Featuring articles from the postponed 2020 Annual Conference

ALSO INSIDE



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THIS ISSUE

EVERY ISSUE

The Professional Forester is published quarterly by and for members of the Association, as well as those interested in the profession of forestry in Ontario.

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A Blueprint for Success

David Hayhurst, Ritikaa Gupta, R.P.F. in Training**, Joe Maure, Emily Dominey, and Jason Koivisto,** Forest Industry Division **and Colin Templeton,** Policy Division, Ministry of Natural Resources and Forestry

In December 2019, Ontario released a draft Forest Sector Strategy designed to sustainably grow the forest sector, attract investment, and demonstrate that Ontario is open for business. Since then, the COVID-19 outbreak has created economic uncertainty in Ontario and around the world and it's clear that it is having a negative economic impact on Ontario's economy. This global outbreak makes the Forest Sector Strategy more important than ever. The strategy will support existing businesses and help create more opportunities for new entrants while creating prosperity in northern and rural Ontario and ensuring high standards of sustainable forest management on Crown forests and private lands.

The draft strategy is built on four pillars: promoting stewardship and sustainability, putting more wood to work, improving our cost competitiveness, and fostering innovation, markets and talent.

An overarching goal of the strategy is to harvest our sustainable available supply as is determined by Registered Professional Foresters through the forest management planning process. While this focuses on Crown forests, we recognize that achieving this goal will require increasing the sustainable supply from private lands too. Ontario entrusts the Ontario Professional Foresters Association (OPFA) to ensure its members comply with the highest professional standards of practice in forestry. This helps Ontario enhance its competitive operating environment for forest-based business. Professional foresters also help ensure that forests are economically, ecologically, socially and culturally sustainable, and promote diverse use.

Professional foresters are trained in a variety of disciplines, which allows them to manage various aspects of forests. By deploying their multidisciplinary skill sets and knowledge foresters can help Ontario achieve its sustainable harvest level and maintain public trust in Ontario's forest management system.

By helping to promote our sustainable forestry practices, Ontario can put more wood to work while improving the sector's cost competitiveness and fostering innovation, new markets and talent across the sector.

The OPFA is committed to enhancing public awareness about professional forestry and upholding the principles of stewardship and sustainability. This mandate is well-aligned with the Promoting Stewardship and Sustainability pillar in Ontario's Forest Sector Strategy.

OPFA members can play a role in advancing stewardship and sustainability actions of the strategy by advocating for Ontario's sustainable forest management policies and practices. Misconceptions around forestry continue to circulate and, as an accredited group, Ontario's professional foresters can help eliminate these negative perceptions by educating Ontarians, particularly youth, about Ontario's forestry practices.

Forestry is a much broader sector than many Ontarians recognize. From managing forests, to forest products manufacturing, to mass timber construction, forestry encompasses a variety of disciplines and requires diverse knowledge and skill sets. Through effective public outreach, Ontario's professional foresters can act as advocates for public understanding about forestry in Ontario and by extension encourage youth to consider the wide range of careers within the forest sector.

While our efforts to stop the spread of COVID-19 may delay opportunities for classroom engagement or experiential learning opportunities, there are several tools and resources on the forestry education landscape that can support OPFA members' endeavours to reach students. When appropriate, I encourage members to take advantage of them.

OPFA members can influence forestry education in their communities by working with school board leads to encourage the uptake of forestry Specialist High

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Skills Major (SHSM) programs in local secondary schools. These programs require industry support and expertise in delivering course material. OPFA members can contact SHSM leads at their local school boards to inquire about potential for a forestry SHSM program in their area.

Again, when the time is right, OPFA members can also get involved in promoting forestry careers by referring to Project Learning Tree Canada's educator's guide, *Green Jobs: Exploring Forest Careers* which offers a number of lesson plans and hands-on learning activities. Forests Ontario's Forestry in the Classroom program is another avenue for OPFA members to reach classrooms and share their industry expertise with youth. Through these programs, students of all ages are introduced to concepts of forest science and management, as well as careers in the field.

Today's OPFA members play a critical role in inspiring the next generation of forestry professionals. Together, we can work to attract young Ontarians to forestry careers and highlight pathways into these careers while addressing the misperceptions about forestry and reducing the current labour shortage.

The Changing Regulatory Environment in Canada

Richard Steinecke[1], Counsel, Steinecke Maciura LeBlanc

How professions are regulated has been under rapid reform in England, Ireland, Australia and New Zealand for many years. It is now happening in Canada. There have been more than a dozen external reviews on the subject across the country over the past decade. The resulting reports have recommended a surprisingly similar series of reforms. In British Columbia those reforms are now being implemented. It began with the real estate profession, progressed to five natural resources professions and is now being imposed on health professions. There is every reason to believe that Ontario will, eventually, follow suit.

Those reforms have three major components to them.

1. Governance

The self-regulation model that is currently in place permits the profession to elect the majority of the members of the Council of the OPFA. Subject to some geographical limitations, the profession is free to choose the bulk of their overseers on any basis they choose. The rationale is that, by doing so, the profession will accept the resulting regulation. In addition, professional members will presumably have expertise in the issues facing the profession.

However, under the new regime, all members of the Council of the OPFA will be selected though a merits-based process. Applicants to the Council will have to provide detailed information as if they were applying for a senior position in any organization. Applicants will be evaluated against criteria of the skills needed to serve on the Council (e.g., policy making, oversight background, public interest Board experience, teamwork references, communication skills). This process will apply to both professional and non-professional positions on the Council. Members of particular committees will not be from the Council and will be selected for particular skills (e.g., experience in conducting hearings for the Discipline Committee).

The ratio of professional members to non-professional members on the Council will likely change to 50:50. In some reform initiatives, slightly more non-professional members are selected than professional members.

The Council's role will be limited to strategic planning, risk management and oversight. Council members will not be involved in regulatory committee work such as registering applicants or processing complaints. Since the Board will be experts in regulation and not in the profession, it will have to develop strategies for obtaining that information, such as creating Advisory Councils and engaging in extensive consultations with the profession.

2. Oversight Body

There is a strong likelihood that the OPFA will not report directly to the Ministry. Rather it will be accountable to an oversight body that will require detailed reports on the OPFA's activities. In all likelihood the oversight body will develop performance measures that the OPFA will be evaluated against. For example, the OPFA will likely have to demonstrate how its complaints system is accessible to members of the public who wish to make a complaint, the speed and thoroughness of investigations and the perception of fairness by participants.

3. Transparency

Already there has been a trend to requiring more information be made public by professional regulators. In addition to websites fully explaining the OPFA's activities, including how the public can participate in them, regulators may be required to post all Council meeting materials online and to permit the public to attend all such meetings. After COVID-19 the expectation may be for virtual access as well as in-person access. Significantly, for

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[1] Richard Steinecke is Counsel to the law firm of Steinecke Maciura LeBlanc and practises exclusively in the area of professional regulation.

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practitioners, the extent of information posted on the public register about them will likely be increased. For example, complaints that result in remedial action, even if they are not referred to discipline, may be posted. So may compliance with continuing professional development requirements. In fact the outcomes of all regulatory interactions between the OPFA and practitioners may need to be made public.

This development reflects a shift of mindset. Previously there was a concern about posting information about practitioners where concerns were not "proved". Society is moving to the perspective that any information that might be relevant to the choice of practitioner should be public even where it has not been through a formal adjudication.

Implications for Practitioners

There is no timetable for regulatory reform. However, the experience in British Columbia indicates that when change comes, it can be rapid.

Practitioners will probably first notice the OPFA taking steps to prepare for the future. The OPFA may change some of its processes in anticipation of societal and government expectations. For example, the OPFA may enhance public access to its processes.

When the change comes, practitioners may notice that the selection process for professional members of the Council will no longer involve elections and may include a screening and pre-selection training program. The OPFA will likely be consulting extensively with the profession to help educate its non-professional Board about the implications of policy proposals. There will likely be more surveys and feedback opportunities from both the OPFA and an external oversight body. Also, the public register will contain more information about practitioners.

The future is now (in British Columbia), it is just not here (in Ontario) yet.

Spring woodland plants — pink lady slipper (right), upright wood-sorrel (left). Photo credit: Betty van Kerkhof.

Ontario Forest Genetics Pieces: Updating Seed Transfer Policies, Managing Information and Archiving Seeds

Ken Elliott, R.P.F., Sr. Program Advisor Biodiversity, Integration Branch, Ministry of Natural Resources and Forestry

Foresters have a long history of guiding forest genetics activities in Ontario and this began with a program known as tree improvement. Today our forest sustainability mandate adds genetic conservation and high-quality seed management to the overarching program that we now refer to as Forest Genetic Resource Management (FGRM). Many foresters and others utilize and support forest genetics in their day-to-day work, however those leading today's FGRM programs are a small group of dedicated forestry professionals and scientists that work for both industry and the government. In Ontario, the FGRM management structure has the Ministry of Natural Resources and Forestry's (MNRF)'s Integration Branch (IB) as a hub maintaining most of the communications and linkages. The three regionally based FGRM associations (Superior Woods Tree Improvement Association, Forest Gene Conservation Association and Northeast Seed Management Association), do the real on the ground work of managing seed orchards, collecting seed and implementing tree improvement programs. The administration of base funding and scrutinizing of project applications and funds is provided by the Forestry Futures Committee. MNRF's Forest Research and Monitoring Section (FRMS) provides science support, conducts research and runs a forest genetic archive with a forest research and development scientist, a coordinator and some operations staff. Lastly, The Crown Forests and Lands Policy Branch (CFLPB) guides policy development with the support of a Senior Policy Advisor. The main areas of focus are:

- Tree Seed Transfer Policy – an update to the Tree Seed Zone Policy
- the manuals associated with Forest Management Planning
- Forestry Futures Trust policies; as well as
- considering an update to the broader forest genetics policy.

Seed Transfer

Current regeneration programs rely on seed sourced from seed orchards established through tree improvement programs, as well as a significant amount of seed acquired from local wild stands identified as having suitable quality and sourced according to the Seed Zones of Ontario policy (see Figure 1). For some time now foresters have recognized that the existing policy does not provide the flexibility needed to allow them to begin to address climate adaptation. This has led to concerns that plantations installed today may not be as healthy or grow as well as they might if the source of seed was more suited to the climate that will be present when these trees mature.

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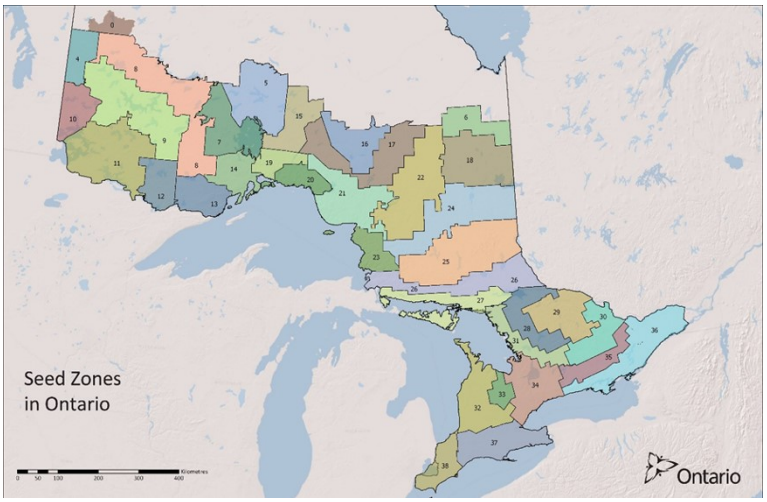

Figure 1. Seeds Zones of Ontario, the current seed transfer policy requires seed collected within one of the zones to be deployed within that same zone unless provincial approval is acquired. These are referred to as fixed zones.

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In order to address these challenges, update the science and better align with current administrative boundaries and operational realities, the CFLPB of MNRF has prepared a new draft tree seed transfer policy that moves away from the 38 discrete seed zones where seed movement is restricted (fixed) to the zone that it was collected in. The proposed new tree seed transfer policy uses a focal zone approach based on a climate similarity analysis to determine which areas are suited to supply seed for a planting site. In the focal zone approach, a suitable planting area is defined for each seed source location or a suitable seed source area is defined for each intended planting site. These areas are referred to as allowable seed transfer areas. This approach seeks to identify locations where tree seeds can be moved with minimal risk of maladaptation. Seed transfer is guided by a climate similarity analysis, which is used to compare the historical climate of a seed collection site with the future climate of potential deployment sites. The direction of seed transfer is generally from warmer to cooler areas to increase the similarity between past climate at the seed source origin and future climate at the planting site.

Following consultation with Natural Resources Canada (NRCan) and MNRF scientists and other experts, the MNRF's Forest Analysis and Modelling Unit (FAMU) incorporated the new draft policy and analytical results from the SeedWhere program (McKenney et al 1999) into a spatial tool created in the Tableau environment (see Figure 2 and the link: https://public.tableau.com/profile/larlo#!/vizhome/SeedSourceOntario/Intro?publish=yes), to observe the draft Seed Transfer Policy – Spatial Direction.

Figure 2 (a & b). Two screen captures from the draft Seed Transfer Policy – Spatial Direction. In this scenario two foresters from southern Ontario have surplus white pine seed collected in their local areas (Forester a) Niagara (Ecodistrict 7E.5) and (Forester b) Simcoe (Ecodistrict 6E.6). Their colleague in Algonquin Park would like to plant some southern Ontario white pine on the east side of the Park in Ecodistrict 5E.10. The analysis indicates that the Algonquin forester will need to deal with the

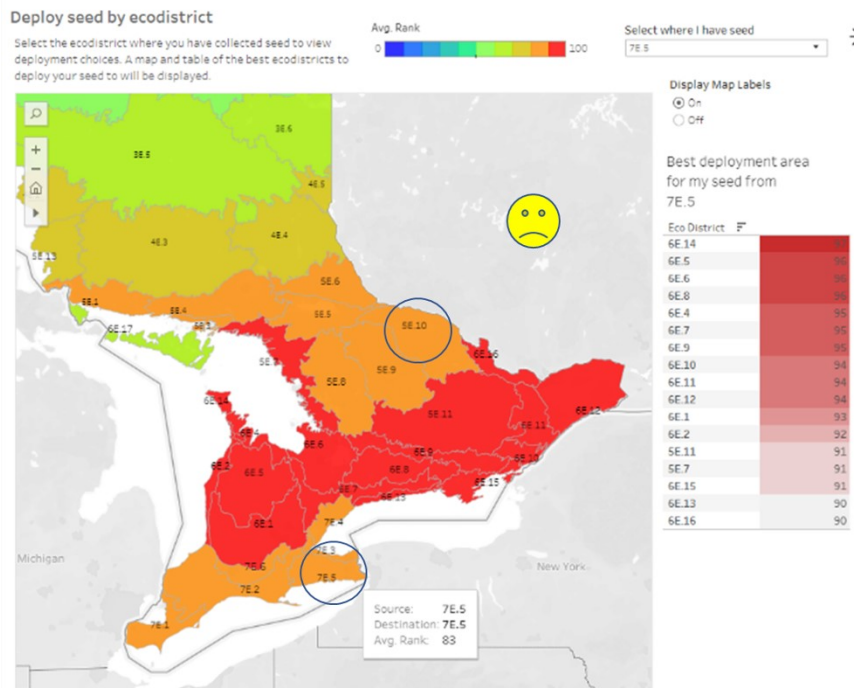

Figure 2a. Potential deployment area for seed from 7E.5 (mapped in red).

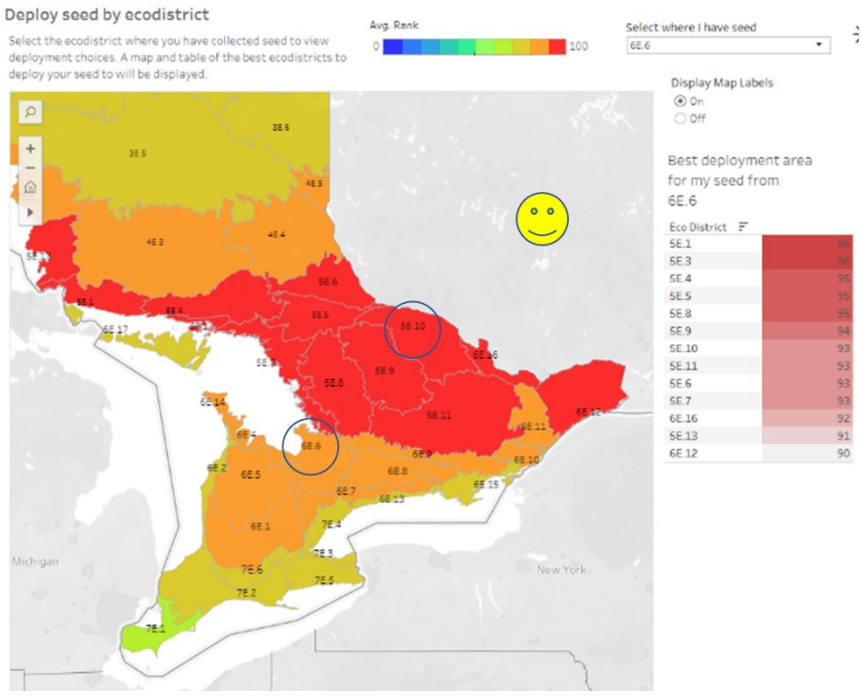

Figure 2b. Potential deployment area for seed from 6E.6 (mapped in red)

Simcoe forester to acquire seed for 5E.10 that is above the 0.9 threshold for similarity at 93% (2b). The 7E.5 seed has an 83% similarity and does not meet the 0.9 threshold (2a).

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Climate Similarity Analysis

The MNRF, in collaboration with NRCan, used the Seedwhere program (McKenney et al 1999) to analyze similarity between historic (1961-1990) and future (2011-2040) climate on all pairs of ecodistricts and seed zones. The climate variables identified by the scientists as the main drivers of genetic adaptation in forest genetics studies were mean annual temperature, growing season length, and minimum temperature coldest month. Although we know moisture influences tree growth and survival, precipitation does not drive genetic variation in Ontario trees in the same way as temperature-related variables. Ongoing research suggests that, in Ontario, precipitation is a more important factor in determining a species presence or absence than population-scale variation. The climate similarity is measured on a scale of 0 to 1, where 1 is an exact match and 0 is the least similar comparison across the study area. A 0.9 threshold was determined based on analysis of provenance data for several Ontario species that showed < 10% losses in growth and mortality. Climate projections were based on the lowest emissions scenario representative concentration pathway (RCP) 2.6: the theory being that these produced conservative transfer distances compared to those projected for an RCP 8.5, thus promoting early survival and growth, when trees are most vulnerable to extreme climate events (e.g. false spring episodes, etc.) and reproductive fitness.

The main differences from the existing policy is how adaptation to changing conditions has been included, in response to practitioner concerns and what the science tells us about trees ability to adapt to changing conditions and the impacts of possible future climate projections and scenarios (See Table 1.).

Thorough scientific, technical and user input was utilized in the development of the new draft policy. It was posted for public review through the Environmental Registry last fall. The comments have been reviewed and revisions have been made. A Decision Notice (approved Policy) is expected to be posted to the Environmental Registry by early summer 2020.

Table 1. A comparison of the main differences between the current seed zone policy and the proposed tree seed transfer policy.

Ontario Tree Seed Transfer Policy - Current vs. Update	
Generic – Current Seed Zones of Ontario (2010)	Generic – Updated Ontario Tree Seed Transfer Policy (2020)
Applies to all species	Applies to all species
Natural stands – wild seed	Natural stands – wild seed
Seed Zones (key landscape unit)	Ecodistricts
Seed collected within a zone can be deployed within zone. Transfer outside of zones only on approval basis.	Transfer is permitted beyond local seed collection areas. Transfer in changing climate guided by determining location of a climatically similar growing site.
Based on Ontario Climate Model (1968-1988 climate data), Hills site regions (1961) and MNRF administrative boundaries.	Uses key climate variables for adaptive variation, e.g., mean annual temperature, growing season length

Foresters transfer seed based on factors which increase the likelihood that trees grown from the transferred seed are well-adapted to the chosen growing environment. Better adapted trees will help to maintain healthy and diverse forests, more capable of enduring threats, such as climate change. Under the new tree seed transfer policy, a forester will have the flexibility to utilize combinations of seed sources that minimize survival and growth risks and are better suited to meeting the silvicultural objectives proposed for the area.

GIS Layers

A significant proportion of the seed used in tree planting programs across the province comes from seed orchards developed through traditional tree improvement programs. Recent inventory work lead by Integration Branch has resulted in updated information related to the network of forest genetics installations (seed orchards, progeny trials, tests and archives) that support these programs. With the assistance of policy, science and the staff from each of the FGRM associations the GIS layer known as Forest Genetics Sites, was edited in 2019. There are now officially 301 sites across the province. This layer of polygons that is shared directly with forest management planning teams supports operations planning and mapping. As well in this past year FAMU was able to improve the legacy Seed Zones

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layer with improved boundary recognition and colour schemes. Lastly policy lead the modernization of the Forest Genetics Zone layer through the acquisition of base data and support from the very cooperative forest sector and association partners. This layer includes all the currently used breeding zones for jack pine, black spruce, white spruce and white pine in Ontario and the created maps were included as appendices to the draft tree seed transfer policy.

Forest Genetic Archive

The past year also saw further development of the forest genetic archive for Ontario. Which is located at the Ontario Forest Research Institute in Sault Ste. Marie, where a laboratory freezer was refurbished to accommodate the archive material. The purpose of the genetic archive is to help ensure healthy forests for future generations by supporting:

i) genetic and biodiversity conservation, and

ii) climate change and forest resilience research

With support from Integration Branch (IB) and Southern Region – representative samples of seed from each species by seed zone combination that was available from bulk collections at the Ontario Tree Seed Plant (before it was closed) were transferred to the Archive. As well, historical special tree improvement seed was moved to the archive and those pertaining to current FGRM Association programs were returned to them. IB facilitated the spring 2019 consultation between the Forest Research and Monitoring Section (FRMS) and the associations and industry partners. Comments covered many aspects of the objectives and proposed plans including the potential conflict between the two main purposes. In September 2019, a test of collection and processing methods were used to scope operations and further inform planning. Work has begun on developing a database and information management systems for existing and new paper records that OFRI received through the transition.

FRMS continues to work on planning (objectives and design) and operations activities for the archive based on the initial engagement discussions.

In Ontario, tree improvement has become forest genetic resource management and it continues to be an important area of forestry business. A small but mighty group of dedicated forestry and science folks in both industry and government have been working to keep the legacy of seed orchards and other installations functioning and supporting current demands for sustainable seed supplies to provincial regeneration programs. The existing trees and their records may turn out to be extremely important in our current efforts to prepare for the many uncertainties of the future. A collaborative effort has put concerns regarding climate adaptation and modern science into the form of a new policy to allow the thoughtful transfer of seed sources that will provide needed flexibility for planning foresters and silviculturalists. Work has gone into ensuring our electronic and spatial records reflect our current FGRM footprint and those needed to visualize breeding zones and seed transfer are current. Lastly the forest genetic archive has been established and is beginning to set a course for the future.

Operational Artificial Reforestation Programs in the Boreal Forest Under a Changing Climate

Dennis G. Joyce, Ph.D.

Ecology is founded on the observation that the limits of species distributions are defined by ambient climatic conditions (i.e., climate niche). Thus, the warming climate portends sustained deterioration in habitat suitability leading to range recession of the Boreal Forest (IPCC 20007). More explicitly, a study has concluded that by mid-century the entire managed boreal forest land base in Ontario is expected to be climatically best suited for Northern Deciduous Forest tree species (Rehfeldt et al. 2012).

In the face of these conclusions, formulating a reasoned response to where and when to plant long-lived tree species appears to be an intractable concern. Ontario's seed zoning retains the procurement function, but deployment is subject to the vagaries of shifting climatic conditions. Description of individual species climatic niche and projecting shifts into the future has become the standard for formulating species management plans (IPCC 2014). Seed transfer principles can then be applied to promote the deployment of well-adapted seed. The operational seed transfer recommendations summarized here are based directly on two range-wide studies describing the climate niche and patterns of adaptive variation for eastern white pine and black spruce (see Joyce and Rehfeldt 2013, 2017) and projecting geographic shifts at different time steps into the future. These results are then generalized to include both Boreal and Northern Deciduous Forest tree species.

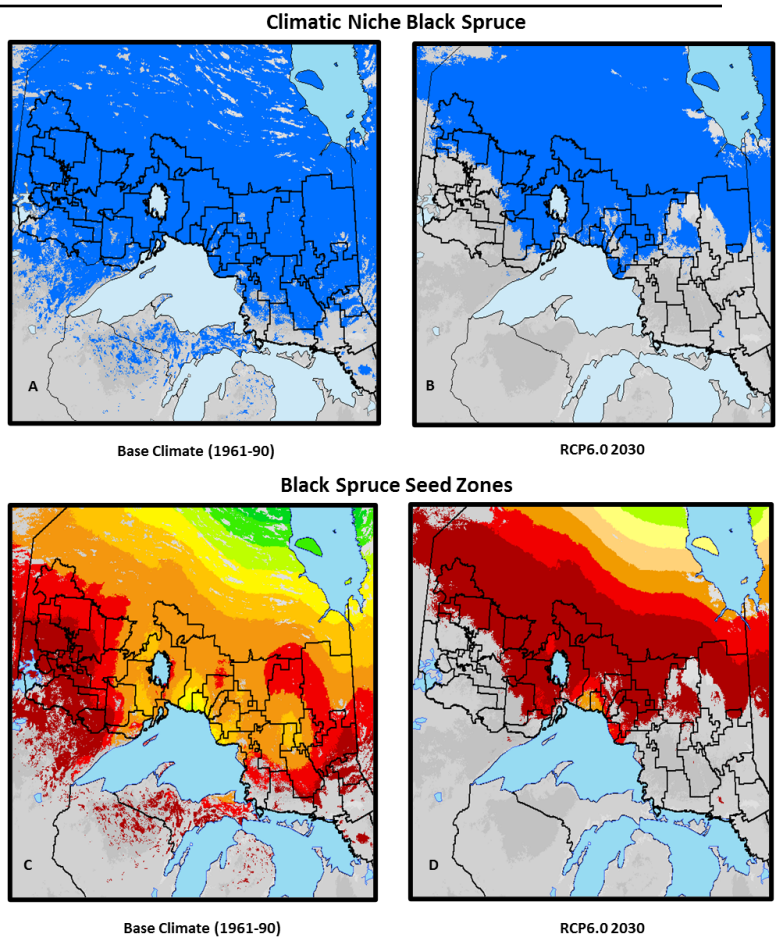

Figure 1. A) Contemporary climate niche; B) Projected shift in suitable habitat for the decade centered on 2030; C) Contemporary seed zones assume the function of seed procurement zones; D) Projected shift in seed zones for 2030 seed deployment.

Black Spruce

Two attributes of black spruce convey high vulnerability to extirpation forces. Close adaptation to local climatic conditions portends minimal capacity for buffering against escalating climatic stress. And, the southern limits in distribution are essentially the same as the Boreal Forest, which precludes availability of climatically sensible seed sources from further south.

Figure 1 presents the geographic distribution of the climatic niche of black spruce (A), as well as projections for range recession for the decade centered on 2030 (B). Wide-spread early deterioration in suitable habitat is evident along the southern edge. These sobering projections infer that intensifying chronic abiotic stresses will result in

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declining vigor, elevated mortality, and reproductive failure ultimately leading to range recession.

Maintaining black spruce through mid-century seems problematic. But, range recession may be delayed by adopting these recommended seed transfer guidelines. Contemporary seed zones derived from disparate seed source trails (Figure 1C) document the complex spatial pattern of adaptive variation. Projected shifts on seed zones (Figure 1D) indicate that the southernmost seed zone represents the optimum seed procurement zone for deployment into all suitable habitat in Ontario. Given the temporal proximity of project ecological stresses testing recommended transfers takes on some urgency.

Eastern White Pine

The expansive distribution of eastern white pine in the Northern Deciduous Hardwood forest leads to the expectation that it would be a viable option for reforestation programs in northern Ontario. However, the pairing of models describing the climatic niche and patterns of adaptive variation elucidate a complex pattern of range recession and expansion. Figure 2 presents the contemporary climatic distribution of eastern white pine (A) as well as the redistribution of the climate niche projected for 2060 (B). Projected range recession is evident in northwest Ontario and the Temagami district. But, these losses are more than compensated by emergent suitable habitat east of Lake Superior. A range-wide model describing adaptive variation in eastern white pine resulted in six seed zones that function as procurement zones (Figure 2C). The procurement zone along the north shore of Lake Superior (blue) is projected to be a match for small areas in the managed Boreal Forest land base (Figure 2D). But, the seed sources originating from central Wisconsin, the lower peninsula of Michigan, southern Ontario, New York, and New England (green) are expected to optimize adaptation for most of northeast Ontario.

Other Species

Studies that assess patterns of adaptive variation are only available for a small number of Boreal and Northern Deciduous Forest species. In the absence of such studies, seed transfer guidelines based on climate variables of known predictive value must serve. The variable 'degrees days above 5° C' (DD5)

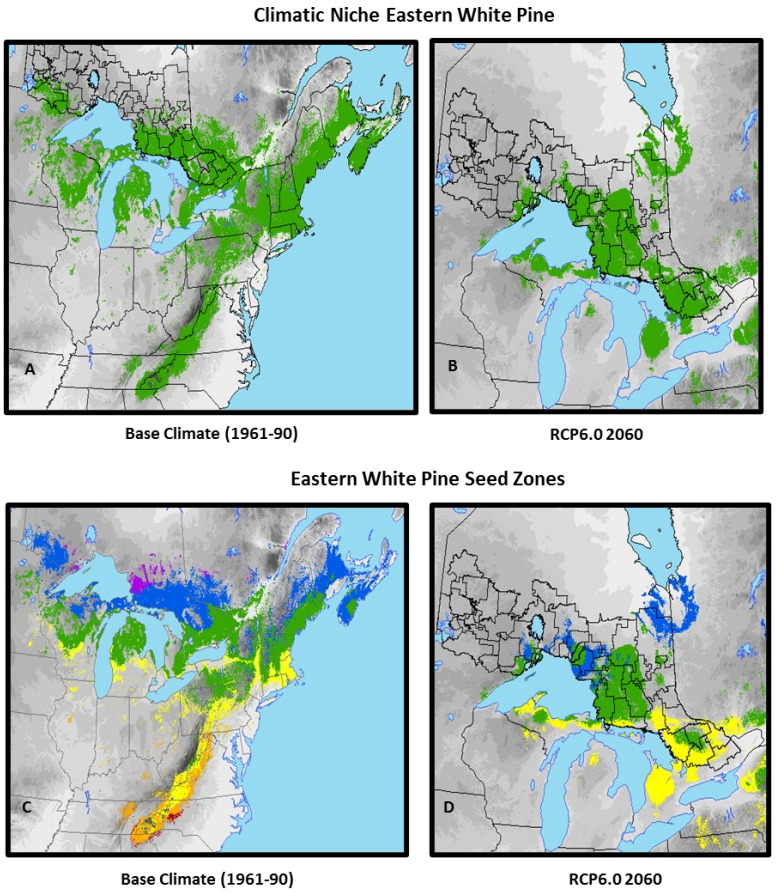

Figure 2. A) Contemporary climate niche; B) Projected geographic shift in suitable habitat for the decade centered on 2060; C) Contemporary seed zones function assume the function of seed procurement zones; D) Projected shift in seed zones for 2060 seed deployment.

has proven to be the best predictor of adaptive variation for both black spruce and eastern white pine and will be used to illustrate the approach. However, because no genetic information is available, delineation of seed zones is not possible. Alternatively, the term 'profile' is used to refer to graphic representation of climate gradients.

Red pine is used to illustrate seed transfer supported by a climate niche model but without information on adaptive variation (Figure 3). The climate niche models provides an enhancement of Little's range map (Little 1971) because distribution is based on a robust presence and absence data base (A). Projections for 2060 include range recession in Minnesota and Wisconsin with expansion of suitable habitat in northeast Ontario (B). While no significance is associated with the profile intervals, matching of DD5 bands of the seed deployment (C) and procurement profiles (D), promote the use of well adapted seed.

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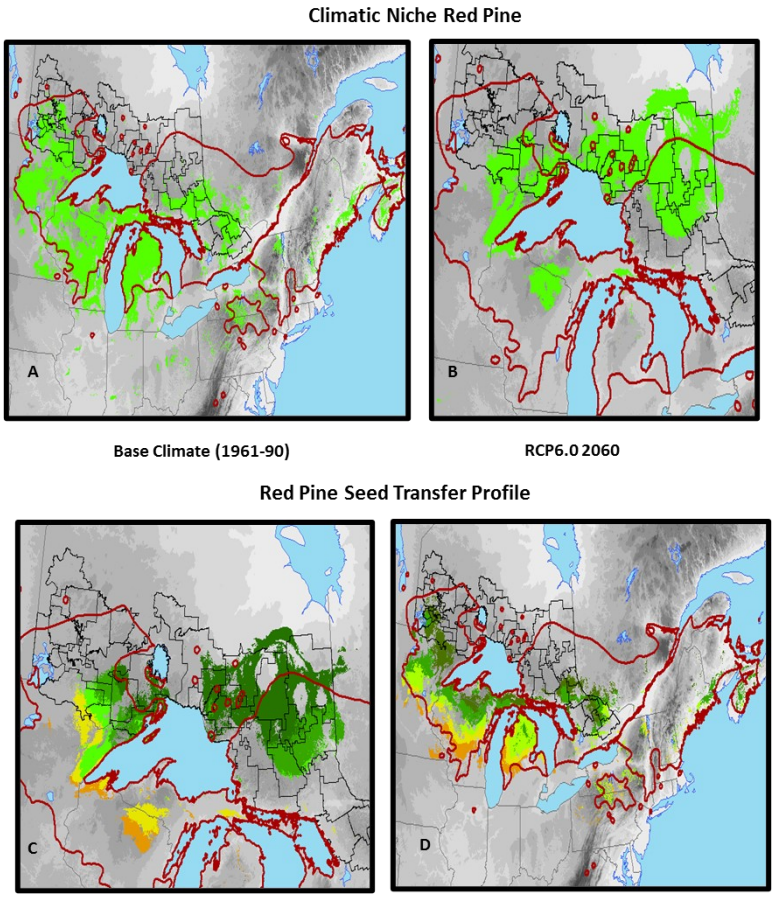

Figure 3. (A) Climatic niche of red pine; (B) Projected suitable habitat for 2060 RCP6.0; and, (C&D) Seed deployment and procurement profiles based on DD5).

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When information on both the climatic niche and patterns of adaptive variation is absent, shifts in the climate profile provide a generic basis for seed transfer. Figure 4 illustrates the climatic profile for jack pine (A) and the suitable habitat projected for northern Ontario by mid-century (B). Matching seed to planting site based on similarity of DD5 in both the deployment and procurement profile (C&D) represents the best approach to operation reforestation.

Conclusion

Climate change sufficient to cause severe ecological impacts to the Boreal Forest are inevitable. Modeling results indicate that these impacts are likely to be evident by mid-century. Even an informal risk analysis quickly concludes that action is required. The work described here provides a template for implementing reforestation programs to mitigate these impacts. Yet, the climate and ecological models involved are imperfect representations of real ecological dynamics. As such, these recommendations should be viewed as testable hypotheses.

References

Bush, E. and Lemmen, D.S., editors (2019): Cana da's Changing Climate Report; Government of Canada, Ottawa, ON. 444 p.

IPCC. 2007. Climate Change 2007: Impacts, adaptation and vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the IPCC. Cambridge University Press, N.Y, New York. 976 p.

IPCC. 2014a. Climate Change 2014: Impacts, adaptation, and vulnerability. Part a: global and sectoral aspects. Contributions of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge.

1132 pp.

Joyce, D.G. and Rehfeldt, G.E. 2017. Management strategies for black spruce (*Picea mariana* (Mill.)B.S.P.) in the face of climate change: climatic niche, clines, climatypes, and seed transfer. Forestry: An international journal of forest research. 90(4)594-610, doi:10.1093/forestry/cpx018.

Joyce, D.G. and Rehfeldt, G.E. 2013. Climatic niche, ecological genetics, and impact of climate change on eastern white pine (*Pinus strobus* L.): Guidelines for land managers. For. Ecol. Mgt. 295, 173-192.

Little, E.L. Jr. 1971 Atlas of United States trees, volume 1, conifers and important hardwoods. *USDA, Misc. Pub.l 1146*. Washington, D.C. 9pp., 200 maps.

Rehfeldt et al. 2012 North American vegetation model for land-use planning
in a changing climate: a solution to large classification problems. Ecol. Appl. 22(1):119-141.

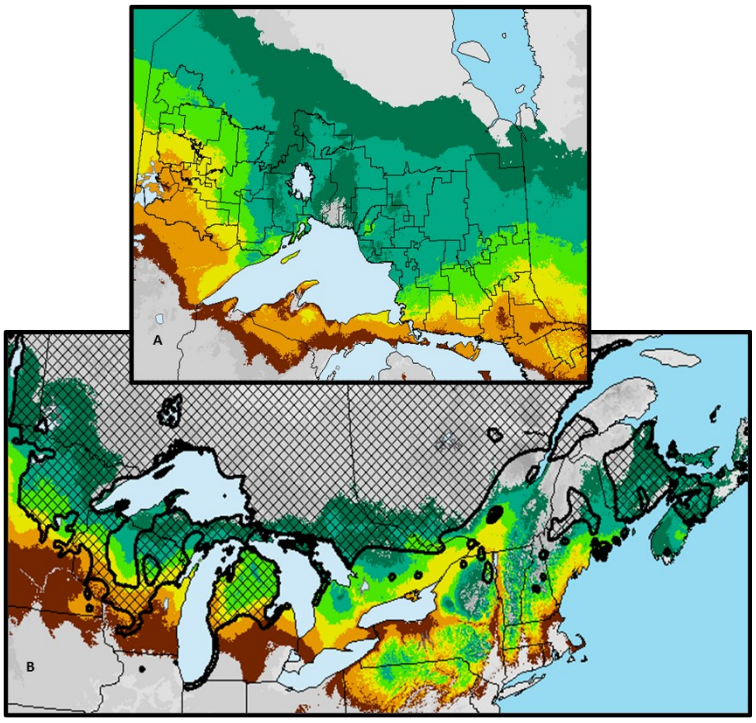


Figure 4. (A) Generic seed deployment profile based on projected 2060 RCP6.0 DD5. (B) Seed procurement profile with Little's (1971) jack pine range map overlaid (hatched area).

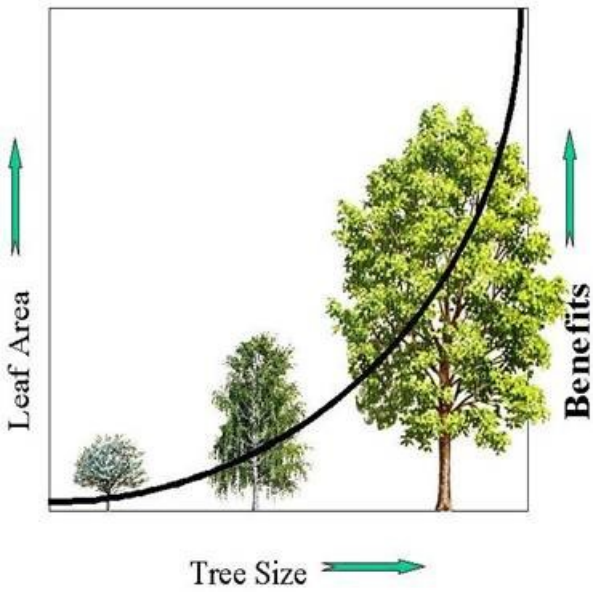
Trees and Asset Management – What Goes Around…

James Lane, R.P.F., Manager, Natural Heritage and Forestry **and Michael Rosen**, R.P.F., Past President, Tree Canada

Original version published in Municipal World, November 2019

Trees – the MMA (Miracle Municipal Asset)

For municipal asset managers, "assets" devalue with time. Sidewalks crumble, roads pothole and bridges need replacing. Yet no matter which way you look at, trees only increase in value. Not only that, but whether it be economic (e.g., property value), environmental (e.g., CO_2 capture) or health (e.g., psychological well-being) tree value increases exponentially with time and size.



Historic Context

Trees were frequently seen as a hindrance to "development" and "civilization" - something to "get rid of". The industrial revolution made possible "leisure time", with citizens demanding parks (and trees) to provide them with recreation and beauty. Urban parks and "street side plantings" were created - new concepts in post-industrial Canada. Trees were eventually treated as so much other infrastructure and managed by municipal staff responsible for roads, signs and parking meters. When "asset management" developed, it was associated with "grey infrastructure" (i.e., roads, signs, sewers) however lately trees are now being included as infrastructure albeit "green infrastructure".

The Value of "Green" Asset Management

Asset management planning is the process of making the best possible decisions regarding the building, operating, maintaining, renewing, replacing and disposing of infrastructure assets.

The objective of asset management is to maximize benefits, manage risk, and provide satisfactory levels of service to the public in a sustainable manner. Asset analysis looks at life expectancy and makes comparisons using various scenarios (e.g., no maintenance vs. replacement in 20 years vs. maintenance every 5 years etc.…).

Green infrastructure is defined as the natural vegetative systems and technologies that collectively provide society with a multitude of economic, environmental and social benefits. This includes:

- Urban forests and woodlots
- Bioswales, engineered wetlands and stormwater ponds

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- Wetlands, ravines, waterways and riparian zones
- Meadows and agricultural lands
- Green roofs and green walls, porous pavements, rain barrels and cisterns
- Urban agriculture
- Parks, gardens and grassed areas

In many analyses, green infrastructure has proven to lower the cost of grey infrastructure. The management and accounting of municipal assets is articulated in *Ontario Regulation 588/17: Asset Management for Municipal Infrastructure*. Recently, it has been modified to include green infrastructure with all Ontario municipalities required to prepare asset management plans by July 1, 2023.

Green Infrastructure Asset Management at York Region, Ontario

York Region is a 1,766 km^2 upper tier municipality north of the City of Toronto with a population of 1.11 million that manages its individual trees along its road right of ways as well as the York Regional Forest, a 2,300 ha "wilderness" for primarily recreational purposes.

In York Region, its tree assets are organized into "biological assets" and "civil assets" under an Asset Plan under three categories:

1. Urban Forests
   - Biological Assets – street trees, shrubs, perennials and growing media
   - Civil Assets – soil cells, irrigation and drainage
2. York Regional Forest
   - Biological – forest, wetland and grassland communities
   - Civil – trails, parking lots, fences, culverts, etc.
3. The Bill Fisch Forest Stewardship and Education Centre

State of the Infrastructure

In valuing trees, the appropriate and defensible method to value biological assets includes:

- Street trees – Using the *Council of Tree and Landscape Appraisers* trunk formula method (as articulated by the International Society of Arboriculture)
- Shrubs and perennials – replacement cost
- Growing media – replacement cost
- Ecosystem services (e.g. oxygen production, CO_2 capture and stormwater detention) as derived from the United States Department of Agriculture's (USDA) *i-Tree Eco* software analysis suite
- Civil assets using depreciated replacement cost

Growing a 2 Billion Tree Program

Rob Keen, R.P.F., CEO, Forests Ontario/Forest Recovery Canada

Last summer researchers at ETF Zürich released a report citing the benefits of establishing one trillion trees, which the authors suggest could store 205 gigatonnes of carbon. During last year's federal election, candidates Justin Trudeau and Elizabeth May ended up in a bidding war over who would plant the most trees, promising two billion over 10 years and 10 billion over 30 years respectively. The victor, Prime Minister Trudeau, shortly after taking office followed through with his commitment as noted in the mandate letters of Ministers Seamus O'Regan, at Natural Resources and Jonathan Wilkinson, at Environment and Climate Change. This adds up to a significant focus on the goal of establishing new forest cover. The fact that climate change took such a key role in election platforms, and that leaders recognized (and rightfully so) tree planting as one of the bests means to address climate change was inspirational. When was that last time you recall that "trees" and the environment were front and center in a political campaign?

Since the election, much focus has been placed on addressing this commitment from the staff at Natural Resources Canada and Environment Canada. Several summits and workshops were hosted by ENGOs, NRCan and others. The Nature Canada's - Nature Based Solutions Summit brought more than 400 participants together to discuss the nature-based solutions to address climate change, WWF/ Carolinian Canada Coalition, Nature Works! Restoring our Future by 2030, with well over 100 attendees highlighted emerging strategies to accelerate and scale up action for healthy, resilient landscapes. and NRCan's workshop where approximately 40 invited participants met to discuss strategies on implementation and collaborative opportunities. Forests Ontario had the opportunity to present at these and share lessons learned from over 16 years of delivering afforestation programs.

To many of us, the federal government's commitment to plant 2 billion trees should come as no surprise as their recognition of the importance of, and support for, afforestation efforts is well established. Last summer, the Liberal government, under Catherine McKenna, the then-Minister of Environment and Climate Change, and announced funding ($15 million over four years) for Forests Ontario's 50 Million Tree Program (MTP) – the largest afforestation program in the country.

This is not to say that our afforestation efforts have not been without their challenges. This past spring, the outbreak of COVID-19 took hold in mid-March when Prime Minister Trudeau closed the borders – a understandable action but one that had a significant impact on some of our tree nurseries, who had traditionally relied on some 60 – 70 migrant workers. The question became: who would prepare the spring's trees for planting? And then Ontario Premier Doug Ford announced Ontario's Critical Services and questions abounded. Was tree planting considered a critical service and, if so, could it be done safely? At one point, it seemed like the whole season would be lost. However, through sheer determination and perseverance of our nurseries and planting partners, we only had a 10 per cent cancellation. Congrats to all those involved.

We firmly believe that the lessons learned over the past 16 years through our afforestation programs could be instrumental in assisting the development and implementation of the 2 Billion Tree Program. What will be crucial to achieving this goal will be to build capacity in all of the components necessary for a successful tree planting program. These include securing and tracking seed, stock development, fully trained field staff to support professional tree planters, landowner outreach, an accountable monitoring system and the ability to adapt to change. We also need to recognize and enable existing programs and organizations that are local, respected and just need additional resources. Finally, will be the need to secure long term guaranteed funding to stimulate organizations investing in growing their own capacity.

The 2 Billion Tree Program provides a great opportunity to realize multiple wins for climate, biodiversity and people. There is also a great opportunity for professional foresters, needed to establish and manage these new forests.

We just have to make sure we do it right.

CFIA Plant Protection Survey Priorities

Erin Bullas-Appleton, M.Sc., Plant Health Survey Biologist, Ontario, Plant Health Science Services Division
Canadian Food Inspection Agency, Government of Canada

The Canadian Food Inspection Agency's (CFIA) national plant protection survey program provides information in support of import, export, and domestic regulatory programs and is the basis for sound regulatory decisions.

Pest surveys are required to maintain claims of "pest -free" status of an area, to detect new populations of quarantine pests, and to delimit populations of quarantine pests with limited distributions in Canada. Pest surveys are also an integral part of control and eradication programs. Each year, the CFIA's Plant Health Surveillance Unit develops a survey work plan that reflects a cross-commodity prioritization process conducted in consultation with our Policy and Programs Branch. Typically, annual survey priorities are defined based on data requirements to advance files or support critical regulatory decisions, to support trade, to assess rapidly evolving pest issues while contributing to broader plant health initiatives. The current COVID-19 pandemic has warranted a reassessment of all business line priorities in an effort to identify and balance critical plant health tasks while ensuring a safe food supply for Canadians. In Ontario, hemlock woolly adelgid and oak wilt are two examples of forest pest surveys that have been deemed critical tasks and thus are scheduled to be delivered by staff in accordance with established health and safety requirements. We will continue to evaluate the situation and assess capacity to deliver as many planned survey activities as possible. However, in the interim, we will endeavor to connect with partners, stakeholders and citizens through outreach and education to continue to promote early detection and reporting of regulated plant pests as we work together to achieve a new normal.

The CFIA employs various survey methods to detect priority pests including pathway based and pest-specific detection tactics.

The CFIA's invasive alien species (IAS) trapping and rearing surveys reflect extensive research conducted by our partners at Natural Resources Canada-Canadian Forest Service (NRCan-CFS). These pathway-based surveys are designed to detect insects introduced via non-manufactured wood packaging and loose dunnage. Although International Standards for Phytosanitary Measures (ISPM) 15 was adopted in 2002, establishing minimum mandatory treatment requirements for non-manufactured wood from countries around the world, this pathway is still considered high risk for introduction of invasive alien forest pests. These surveys complement policies directed at the prevention of invasive alien forest insects that may enter North America on commodities that use non-manufactured wood packaging and marine cargo supported by loose wood dunnage. Target areas include treed and forested areas within 5 km of industrial zones receiving international commodities including seasonal foliage and handicrafts, disposal facilities and landfills, international ports and terminals as well as freight forwarding facilities.

The semiochemical-based trapping survey currently focuses on the detection of non-indigenous longhorned beetles, however, it will also capture other wood boring insects. In addition to providing an early warning of the presence of potentially invasive pests in Canada, it also provides valuable information on the diversity of Canada's insect fauna. In Ontario, traps baited with two different sets of lures are deployed at 20 high risk sites with 6 traps established at each site. No new IAS were detected in Ontario as a result of this survey in 2019. This survey is reassessed on a regular basis to integrate current science and optimize detection techniques for key pest groups. We are currently integrating canopy traps in addition to understory traps which scientists have found result in more diverse and abundant trap captures.

The rearing survey complements the trapping survey for species or groups of insects that do not readily respond to commercially available semiochemicals, particularly insect borers of hardwoods. This collaborative survey consists of rearing insects collected from declining trees in urban environments removed via established municipal hazard tree removal programs. Rearing containers have been

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established in Toronto to support the collection of host material in Mississauga and Toronto.

The **Asian longhorned beetle (ALHB)** is an invasive insect that attacks and kills a wide variety of deciduous tree species. This beetle was detected for the first time in Canada in September of 2003 and eradication was declared in February 2013 in accordance with international phytosanitary standards. In August 2013, ALHB was detected outside the eradicated area, in an industrial zone of Mississauga. Intensive detection and eradication efforts were implemented in cooperation with municipal, regional and provincial agencies as well as NRCan-CFS. The multi-year science-based program was designed to eliminate the ALHB and its threat to our environment and Canada's hardwood lumber, nursery, and maple syrup industries. The program was effective and the beetle has been successfully eradicated from Canada.

The CFIA also conducts systematic detection surveys for ALHB in a number of municipalities across Canada. The primary goal of this survey is to ensure that there are no established populations of ALHB in target urban centres. Outreach and education efforts are supported by simulation sites in which artifical signs of ALHB attack are created in public areas to promote awareness of signs and symptoms and how to report them.

Emerald Ash Borer (EAB) surveys have been ongoing since the initial detection in Canada in Windsor in July 2002. It is now found in five provinces. The primary goal of this survey is to determine whether EAB is present in areas where it is not known to occur in order to provide information in support of regulatory decisions. Thus in Ontario, EAB survey activities are limited to high risk locations north of the established regulated area. In collaboration with Ontario Ministry of Natural Resources and Forestry (OMNRF), 90 traps baited with (Z)-3-hexenol and (3Z)-lactone are placed at sites where the pest is most likely to have been introduced through human activities, such as campgrounds, firewood dealers, rest stops along major transportation corridors, urban areas recently planted with host material, sawmills, and holiday destinations. Furthermore, traps are deployed within select urban centres using a grid-based approach.

Hemlock woolly adelgid (HWA) is a destructive pest of susceptible hemlock that is native to India, Japan, Taiwan, and China. HWA surveys are conducted in early spring to visually assess hemlock trees for signs and symptoms of attack. Given that HWA is most likely to spread through natural dispersal (wind, water, birds and small mammals) and through infested nursery stock, target sites included nurseries, urban parks and greenspaces, and hemlock forest stands within 100 km of the U.S. border. Given two detections of HWA in the Niagara Region in 2019, Infested Places Orders are being established for the City of Niagara Falls and Wainfleet Township. Over the coming months, the Ontario Hemlock Woolly Adelgid Task Force will establish tactics for addressing these populations in support of a long-term hemlock preservation strategy for Ontario.

Given the threat that **oak wilt** poses to Ontario, the CFIA continues to prioritize visual detection surveys in areas where the pathogen could have been introduced through human-assisted movement of infected commodities, including campgrounds, mills or other facilities importing oak logs from infected US states, border crossings. Visual ground surveys occur between the beginning of July and the second week of August, in addition to ongoing site visits conducted in response to suspect reports from our partners and the public. The interagency Oak Wilt Technical Advisory committee will reconvene over the summer to reassess outreach and education priorities.

The **European gypsy moth** is established in many areas of eastern Canada. Pheromone-based monitoring surveys are conducted annually in non-regulated areas of the country. This survey provides information in support of a number of regulatory programs and policies and helps inform regulatory decisions. Trapping is focused on areas where risk of introduction is greatest, e.g., urban and suburban areas, tourist destinations, campsites, provincial parks and some transportation corridors.

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European Gypsy moth. Photo credit: Caroline Mach.

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Although it has yet to be found in Canada, the **spotted lanternfly** is a highly destructive regulated plant pest we should all be aware of. All suspect finds should be reported to the CFIA to help protect Canada's fruit and forestry sectors.

The CFIA's science-based surveillance program is supported by ongoing collaborative research, partnerships as well as outreach and education programs which help to enhance survey capacity by promoting early detection and reporting of invasive plant pests. We are striving to report on collaborative efforts relevant to regulated plant pests so please consider sharing your data. Not only will this foster a complimentary approach, but it will help maximize coverage to enable reporting of our collective efforts for Canada.

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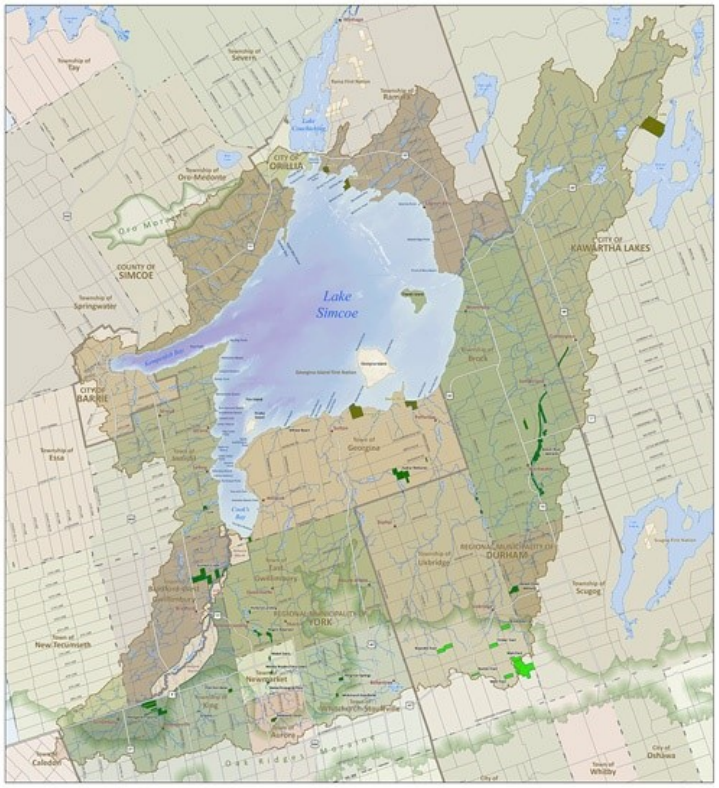
INTERNATIONAL YEAR OF PLANT HEALTH 2020

Ecological Offsetting in the Lake Simcoe Watershed

Kate Lillie, HBSc, EP, ISA, Natural Heritage Ecologist
Lake Simcoe Region Conservation Authority

As the Lake Simcoe watershed continues to urbanize and experience development pressure, ecological offsetting is a new tool that Lake Simcoe Region Conservation Authority (LSRCA) is using to address the unavoidable loss of natural heritage features, like wetlands and woodlands. It is a tool that supports growth in strategically important areas while balancing the need to protect and expand our natural systems. To learn more about how LSRCA is implementing an Ecological Offsetting Policy, visit: www.LSRCA.on.ca/offsetting



Lake Simcoe Watershed—https://www.lsrca.on.ca/Pages/watershed.aspx

Mass Timber: More Than Just a Good Look for Building Construction

Alex Nott, M.Eng., P.Eng, Mass Timber Engineer

In recent years excitement has been growing across North America about a category of large-scale engineered wood products dubbed 'Mass Timber', and this blooming love affair goes deeper than just mass timber's good looks.

Call me shallow, but I personally became enamored with large-scale wood construction due simply to its beauty. While this may seem superficial, research, out of institutions like the University of British Colombia and Kyoto University has demonstrated that exposure to wood in our buildings has physiological benefits like reducing heart rate and blood pressure, curbing our fight or flight response and increasing cognitive function. What's more is that these physiological responses can translate directly into economic benefits such as increased productivity, reduced stress and reduced illness related absence.

While a relationship built solely on good looks may be short-lived, the relationship with mass timber is proving to be more than just infatuation. In recent years researchers at federal laboratories and academic institutions have demonstrated the benefits mass timber can offer, resulting in 2020 National Building Code of Canada and 2021 International Building Code acceptance of mass timber buildings up to 12 storeys and 18 storeys respectively.

When considering tall wood buildings, often the first concern cited is fire. Extensive research by organizations like the National Research Council of Canada and the U.S. Department of Agriculture has shown that mass timber is in fact very difficult to set alight. An apt analogy is holding a single match up to the side of a large campfire log. That campfire will, no doubt, yield only unmelted smores and cold campers. Secondly, large-scale buildings (wood or not) are required by building codes to have all the modern fire protection bells and whistles. For example, modern sprinkler systems are often cited as being 99% effective. Finally, mass timber, when it does become involved in a fire, burns, just like our log, at a very slow and predictable rate, allowing hours for occupants to exit the building and for firefighters to arrive and extinguish the fire. In fact, mass timber will often self-extinguish once the fire's original fuel source is exhausted. A YouTube search for 'Cross Laminated Timber Fire Testing' demonstrates this behavior. This is in comparison with reinforced concrete and steel buildings which, if not adequately protected against fire, can fail rapidly and in unpredictable ways.

77 Wade Ave, Toronto, ON – Courtesy of Next Property Group

Mass timber's light weight is another character trait that strengthens the relationship. Trees in the forest must withstand high winds and the weight of snow. In this view wood is a naturally evolved structural material. Mass timber products have approximately 1.5 to 2 times the strength to weight ratio of steel and beat out concrete by approximately 5 times. This makes for a more efficient and lighter structure, resulting in savings on foundations and the ability to construct atop poorer soils. A lighter structure also will experience lower seismic forces during an earthquake.

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Sadly, until recently the relationship with mass timber has been unrequited. It's taken the age of climate change for us to see what's been in front of us all along. According to the International Organization for Standardization, the buildings sector contributes roughly 1/3rd of GHG emissions globally and cement alone is the source of about 8% of global CO_2 emissions. Conversely, sustainably managed forests remove CO_2 from our atmosphere and then using these trees for mass timber buildings locks this sequestered carbon into the built environment. A report titled 'Ontario's managed forests and harvested wood products contribute to greenhouse gas mitigation from 2020 to 2100' by Chen et al. 2018, available through the Canadian Institute of Forestry, makes a strong case for enhancing the carbon sequestration of our forests by using mass timber. Factory production of mass timber also requires less energy and results in 5 to 6 times less CO_2 emissions than concrete or steel. Life -cycle assessment tools like the Athena Impact Estimator software readily quantify these GHG benefits. This combination of low embodied energy and carbon sequestration gives mass timber a negative carbon footprint, offsetting the emissions from more carbon intensive sources.

It's hard to imagine a better companion than mass timber and, given the potential benefits, we'd be mad to let mass timber be the one that got away.

Bertran, Fuchs, Mischke, Palter, Strube and Woetzel, *Modular construction: From projects to products*, McKinsey & Company, June 2019.

Chen, Jiaxin, Ter-Mikaelian, Michael, Ng, Peter, Colombo, Stephen, *Ontario's managed forests and harvested wood products contribute to greenhouse gas mitigation from 2020 to 2100,* Ontario Ministry of Natural Resources and Forestry, The Forestry Chronical Vol 94, No 3, 2018, https://pubs.cif-ifc.org/doi/pdf/10.5558/tfc2018-040

Fell, David, *Wood in the Human Environment: Restorative Properties of Wood in the Built Indoor Environment*, Doctoral Thesis, University of British Colombia, September 2010.

Lehne, Johanna & Preston, Felix, *Making Concrete Change: Innovation in Low-carbon Cement and Concrete*, Chatham House, June 13, 2018, https://reader.chathamhouse.org/making-concrete-change-innovation-low-carbon-cement-and-concrete#.

National Fire Chiefs Council, *Business Case for Sprinklers*, Chief Fire Officials Association Publications, May 6, 2013, https://dsfire.gov.uk/YourSafety/Sprinklers//Dispellingthemythsaboutsprinklers.cfm?siteCategoryId=4&T1ID=167&T2ID=392.

Techlam, *Advantages & Benefits of Glulam: Stronger than Steel*, Techlam.nz, March 5, 2020, https://techlam.nz/about/advantages-benefits-of-glulam/.

Think Wood, *4 things to know about Mass Timber*, Think Wood.com, March 5, 2020, https://www.thinkwood.com/news/4-things-to-know-about-mass-timber.

Tranchard, Sandrine, Measuring the Carbon Footprint of Buildings in a Simple Way, ISO, July 7, 2017, https://www.iso.org/news/ref2205.html.

Zakrzewski, Stas & Gray, Avery, Addressing Embodied Energy with Mass Timber, Passive House Buildings, March 5, 2020, https://passivehousebuildings.com/magazine/spring-2019/addressing-embodied-energy-with-mass-timber/.

COVID-19 and Forestry in Northwestern Ontario

Matt Wilkie, R.P.F., Purchase Fibre and Systems Leader, Weyerhaeuser – Kenora

2020 was expected to be a great year for home construction in the US, Ontario's biggest market for lumber and panels used in residential construction. All the indicators were pointing to that conclusion. 2018 was really good, 2019 was a dud, but 2020 was supposed to be great. Until March 2020, when the COVID-19 global pandemic really hit home in Canada.

In my role as the purchase wood forester for the Weyerhaeuser Timberstrand hardwood laminated strand lumber (LSL) mill in Kenora, I get to interact with a large number of loggers and forest managers from Thunder Bay to Kenora. Because we use hardwood that occurs at a lower density on the landscape than conifer, but our mill uses about the same volume as a large SPF conifer sawmill, we have a relatively big wood basket. Based on that, I would like to share my recent observations about how COVID-19 has impacted the forest industry in this part of the province.

Drift back to a sunny cold day in early March. Things were looking good – we had a normal-ish winter, weather-wise. I was ice fishing in Kenora from mid November until late April – good on both ends. There was an adequate supply of harvest and haul capacity. Mill yards were filling up with logs as per forecast, plus many suppliers made stockpiles for guaranteed spring deliveries, to stretch haul capacity in the winter and keep trucks working in the spring. The spring-forwarding-to-stockpile plan seems to be a necessity in recent years to help balance out the haul capacity issue – not enough trucks to keep up with winter harvest/too many trucks in the summer/ people want to work all year. Mills were producing lumber and other products at nearly full production. Lumber and panel prices were up in anticipation of spring demand. Unfortunately, Kenora Forest Products, a mid-sized SPF sawmill, closed in late 2019, but the demand for Kenora's SPF logs was quickly taken up by Eacom in Ear Falls. Things were easy.

Then in mid-March, as COVID-19 took hold in North America, and as businesses and construction projects in the US were being shut down to reduce the spread of COVID-19, demand for building products tanked. Fear spread amongst loggers, and mills, that there would be downtime to compensate for the lack of demand. Once that scent gets in the air, it seems that loggers switch into high gear. Coupled with that, the spring weather in April was great – very little precipitation, cold dry nights, means we went from winter to summer very quickly – no messy breakup. I think all mills that remained open got hammered with deliveries in April and early May, considerably over forecast and more than the average for spring. I think all the large mills in northwestern Ontario are now experiencing an over-supply of logs, although lumber and panel production has only backed off slightly due to COVID-19 related market issues. I think we are doing ok compared to the rest of the country with respect to mill capacity utilization. That's a good sign for this part of the province, as it seems we were hit the earliest and hardest in the last big downturn a dozen years ago. It really showed how important it is to have everything working – SPF sawmills, hardwood panel and lumber mills, pulp mills, specialty mills. If one cog falls out, the whole system is in turmoil.

With respect to logging operations, if anyone is an old pro at social distancing, it's a logger. These days, it seems most operators already have their own one-person pickup with a 450 L fuel tank in the back, so commuting is not an issue. Once you're out there, it's just you and the friendly ticks, who have no social boundaries. Many operations don't even have a cross shift to worry about cleaning the steering wheel. Haul truck drivers have to contend with physical distancing and sanitation once they arrive at the mill and sign in, but it has been relatively painless and compliance has been very good. Add to that, northwestern Ontario has largely been spared from significant COVID-19 outbreaks, so I have not seen a big difference in the bush. However, because of the high log yard inventories, we will be seeing some curtailment of hauling and logging operations to balance supply with demand. Some mills have

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imposed delivery quotas, some have shut farther suppliers off, some have shut down the yard to all deliveries temporarily. Although mill production has not been severely curtailed here, it may yet happen. We are all worried about keeping logging contractors viable if this continues. Operators need to be retained, payments on equipment need to made. There are encouraging signs that lumber and panel prices are going up as of mid May, and demand is picking up again as states re-open. Hopefully, the COVID-19 battle is on the downside and it will continue like that. I would hope that governments will come through with some big incentives to encourage people to build houses – it's one of the basic needs and one of the building blocks of the economy.

Foresters that I talk to are mostly working from home on their "office" days, and not travelling out of their region for business. No more travelling together to the bush and solving the world's problems as you drive – it's one person per vehicle now. And there seems to be an increased number of conference calls, Zoom, MS Teams, Skype. Third-party certification audits are still happening with modifications or delays. FMP's in production are moving along, but with different public consultation opportunities. Definitely not less busy, but very workable. I think a large number of foresters upgraded their internet service as a consequence.

Mills had a tougher time adjusting to COVID-19 guidelines. Meetings and daily work had to be severely modified by physical distancing or additional PPE and sanitation practices. Absenteeism spiked initially, due to fears of the virus and peer pressure to not come to work if you felt sick at all. That seems to have passed, maybe because we are out of the main cold and flu season. Maintenance shutdowns had to be re-designed. For example, one of northwestern Ontario's pulp mills had to severely reduce the number of contractors on site for their scheduled maintenance shutdown in May, triple the time length of the shutdown, and do less of the required work. All during a time when demand for pulp is high, and loggers want to be delivering chips.

Tree planting was also affected by the pandemic. Early in 2020, industry partners got together and weighed the pros and cons of continuing with the spring tree plant. A cancellation in 2020 would mean landfilling millions of trees - lost investment and just morally wrong - and also a year of crop tree growth lost and a year of competition growth gained. Also, the capacity is not there to be able to double the numbers of trees grown and planted to make it up in 2021. The industry worked together to figure out a way forward with the new reality, and the MNRF came through with $3.5 million in additional funding through Forestry Futures Trust to compensate for incremental costs. Tree plant start dates were delayed in order to allow planters to self-isolate before arrival, to assemble the required additional COVID PPE, to coordinate additional camp facilities and staff, and get extra transportation. Planters were not allowed to use public transportation to get to camp, and were required to keep a log of their close contacts for potential contact tracing. It appears that the number of planters is about the same as previous years, but camp staff and camp facilities have doubled. Planters must also stay in camps on weekends and days off. Delays in start dates ranged from a few days to several weeks. The longer delays in start date may cause tree survival issues if the tree plant runs into the latter parts of July.

Let's all pray, dance or wish that we are through the worst of it, and that COVID-19 will be solved with herd immunity, virus mutation or a vaccine. Let's all continue to do our part as we are able. Keep safe everyone!

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News Release — Ministry of Natural Resources and Forestry
Ontario Protecting Forestry Jobs & Worker Safety During COVID-19

Province invests in worker safety to prevent the spread of the virus

May 7, 2020 11:00 A.M.

The Ontario government is protecting people and jobs in northern, rural and Indigenous communities, while supporting long-term forest sustainability, by investing in protective measures to stop the spread of COVID-19 during the upcoming tree planting season.

Today, John Yakabuski, Minister of Natural Resources and Forestry, announced the government is making $3.5 million available to help put protective measures in place for the workers who plant trees this season.

"We are safeguarding the workers who regenerate our forests and the communities where they work during the COVID-19 outbreak," said Minister Yakabuski. "This will help the industry expand existing facilities and modify operations to ensure that those helping to renew Ontario's forests can work in a safe environment. With these measures, we are also securing the planting of 70 million trees this year in Ontario's forests."

Funds will be used for larger camp facilities and additional kitchens to provide more space, as well as extra personal protective equipment, plastic partitions for transporting workers and more wash stations.

Ontario's forest industry is critical to the provincial economy, generating over $18 billion in revenue and supporting approximately 155,000 direct and indirect jobs. The vital role this industry plays is especially evident during the COVID-19 outbreak, as it provides essential forest products for hygiene, food and medical supplies, as well as packaging and shipping products.

Minister Yakabuski has launched virtual consultations with leaders from the forestry sector to discuss their interests and concerns as Ontario prepares to reopen the economy during the COVID-19 outbreak, within guidelines from the Chief Medical Officer of Health.

Ideas from this virtual consultation will be reported into the government's new Ontario Jobs and Recovery Committee. The Committee will take in this feedback to identify how best to protect and support people and jobs, restart the economy and move towards recovery across Ontario.

"The government's number one priority remains the health and well-being of the people of Ontario, even as we restart the economy and drive subsequent recovery," said Rod Phillips, Minister of Finance and Chair of the Committee. "People across Ontario need to know they can count on their elected officials as we move forward. That's why we're working with all partners and doing everything we can to understand what's needed to continue to protect and support people and our economy in the coming weeks, months and years."

These consultations reflect a Team Ontario approach, working across parties and with experts, local leaders and people across Ontario.

"It is so important to hear directly from forestry stakeholders on the economic impact of COVID-19 and listen to their needs and priorities," said Minister Yakabuski. "By working together with our partners in the forest sector, we can support a careful, stage-by-stage approach to loosening emergency measures and reopening Ontario's economy."

Visit Ontario.ca/reopen to learn how you can submit your ideas.

QUICK FACTS

- The forest industry has been identified as an essential sector; providing essential forest products for hygiene, food and medical supplies, as well as packaging and shipping products.
- Reforestation is a crucial part of sustainable forest management. Tree planting normally begins in May in central and northern Ontario. Ontario's forest sector plants approximately 70 million trees annually to help regenerate Ontario's forests.
- On March 25, 2020, the government launched Ontario's Action Plan: Responding to COVID-19. The first phase of the government's response, it is a $17 billion package with funding targeted to help families and a variety of sectors across Ontario.

Letter regarding pesticide management policies

Note to pesticide applicator licence holders. There has been a recent change to these licences.

Greetings,

Ontario is bringing its pesticide management policies into the 21st century to keep Ontario open for business while ensuring strong environmental protection.

We are taking steps to harmonize Ontario's pesticide classes with the federal government to remove Ontario's duplicative classification process and create a simpler, more efficient process for the sale and use of all pesticides in Ontario.

These changes will bring Ontario in line with all other provinces, creating a level playing field for businesses and farmers while protecting human health and the environment, a part of our Made-in-Ontario Environment Plan commitment to maintain a healthy economy and a healthy environment.

Using the federal categories, and eliminating the provincial-level classification process, removes the primary purpose of the Ontario Pesticide Advisory Committee. Since their role advising on classification is no longer needed, the committee will be dissolved.

It is important to note that while we've aligned with federal classification, we have maintained the cosmetic pesticides ban. We created an Allowable List of pesticide ingredients for cosmetic uses that follows defined criteria. This new approach does not change the current list of pesticides allowed for cosmetic purposes.

Ontario remains committed to restrictions on the sale and use of neonicotinoid-treated seeds. After five years of these restrictions, we've made changes to administrative requirements for farmers and seed vendors to ensure that the necessary information is still collected and retained, while reducing duplication and paperwork where possible to alleviate administrative burden.

We will implement these changes to the Pesticide Act and Pesticide Regulation in phases.

Changes related to the sale and use of neonicotinoid-treated seed came into effect April 9, 2020. Most other changes related to the realigned classes of pesticides and removal of the pesticide classification process will come into effect May 1, 2020.

Some changes related to revised requirements for farmers, vendors and pesticide operator businesses will come into effect January 1, 2021 to ensure enough transition time for awareness of revised requirements.

You can read more about the changes to the *Pesticide Act* and changes to the Pesticide Regulation on the Environmental Registry.

Please contact us if you have specific questions or concerns.

Please pass this along to colleagues, members of your organization, and other organizations.

Sincerely,

Robyn Kurtes
Director, Environmental Policy Branch
Ministry of the Environment, Conservation and Parks

Council Corner

Susan Gesner
Public Member

Council Corner is to provide membership with insight into what happens at OPFA Council meetings.

My phone rang and it was Dan Cooligan on the line. He had an idea for me – Hey Susan, how would you like to sit on the OPFA Council?

I remember my first words….

Um, what's the OPFA?

Well, in a few minutes, I learned why we needed a high level of professionalism in forestry in Ontario, and that the Council regulated members to ensure that level was achieved. I learned the history of the organization and who was involved. Lots of forestry stuff.

I quickly countered with "…but Dan, I'm a biologist!"

He responded "That's precisely why we need you!"

He explained the hoops I had to jump through to be accepted on the Council, which seemed to include all sorts of interviews, filling out forms and agreeing to give up my first born. Well, maybe not that last thing, but it seemed like there was lots of things required. It took months and months, and I may have forgotten about it. And then another phone call, this time from Graeme Davis, letting me know I'd been deemed acceptable by the Province, and could I call the Executive Director, Tony, and find out about meetings, schedules and what I needed to know.

That's how I came to sit on the OPFA Council as a Public Member. I arrived at my first meeting not knowing what to expect. I have learned that most new Councilors attending their first OPFA meeting don't know a whole lot more than I did. Initially, I felt a bit like a fish out of water – I didn't think I would know anyone and I was certainly not a forester. But I strategically sat next to Tony, the Executive Director at the time, and realized I did know a few people. Dave Milton made sure he greeted me with enthusiasm and made me feel both welcomed and wanted. Before the end of the meeting, I felt like I might actually have made a good decision joining this board.

Six years have passed. So many things have happened during that time – new Executive Director, new Council members, new staff – and they have all been positive. I could yammer on and on about how remarkable our staff are, and how welcoming everyone is to new people, but rather than that, I'll share 3 things that resonate with me as a Public Member of the OPFA Council.

Foresters got into the profession because they are passionate about the forest.

Now, that seems self-evident – we all choose careers that let us do what we love, or at least enjoy and do well. Most of the foresters I've met since being part of the OPFA (and prior to that, the OFA and the CFA (amazing where they let a rogue biologist in their midst) got into the profession because they love the outdoors. That doesn't mean you get to spend all your time outdoors. I'm pretty sure you don't. But the passion that you have for the forest is deep and I can feel it around the Council table. We may be discussing new policies, or struggles with government or a new software program, but underneath it all lies that care about the forests, urban or rural, north or south. It is our shared care and respect for the forest that brings us all together.

Foresters are professional.

Now, I know, if you are a member of the OPFA, it means you are a professional because you meet competencies set by your peers (not just your employer or yourself), must be of good character and can be held accountable by the public through an enforceable code of ethics. But I mean it in the very basic sense of the word. When I attend a Council meeting, once we finish teasing each other about being late (thank you, Tim Payne) or what's happening at our respective offices, we become professional. I've sat on plenty of Boards of Directors where the members participate simply because it gives them a day out of the office and some free lunch. But the OPFA Council members are there for a reason and spend their meeting time being professional. Members actually read all the preparatory material Fred, Louise and Pricilla provide to us, so there's no need to wonder whether people are prepared for the discussions. Because they are. Our discussions are undertaken with grace

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and respect and are always informative for all. And professional.

(But we still love that lunch!)

The OPFA is a regulatory body

...but we struggle, all the time, with being clear about our role. Because Council members are passionate about the forest and are professional in their activities, members want the best for the forest. They want the public to know and understand how valuable it is – economically, socially, culturally and environmentally. More often than not, Fred has to remind us that the role of the OPFA is to regulate the practice of professional forestry to protect the public interest and not promote ourselves or some other hare-brained scheme we may be discussing. Ontario's forests are our responsibility, just as it says on the website. We contribute to sustainable forest management by ensuring that those of you who are foresters maintain your high standards. But sometimes, we just want to do things that simply promote good forestry, or help students learn more about forests in school, or do things that are not necessarily in the wheelhouse of the OPFA....because we all care about the future of Ontario's forests.

Those are some of the reasons why I have loved every moment of being on the OPFA Council. I am surrounded by people who care – about the forest, about the economy and our society, and about each other. I've served on the Complaints Committee and the Discipline Committee, because each requires a public member. But I have done it willingly because I am always supported by the kind of people who care.

As a professional forester, please know you are in good hands with the people who serve on your Council. When things settle down and the Province can get back to doing their more normal business, my term will end. I will miss the comradery, the laughter, the business discussions and the plans for the future. But I know the OPFA is in good hands!

Susan

Photo credit: Caroline Mach.

Volunteering

Jenn Dacosta, R.P.F. in training, Editor, The Professional Forester

It has been one year since I took on the role of the Professional Forester newsletter editor. In April 2020, when the editorial board was discussing newsletter content, the idea of encouraging volunteerism within the OPFA came up as a potential article topic. I thought it would be a good opportunity for me to reflect on my year, my experience, and my motivation for volunteering. Little did I know in my research for this article I would stumble upon the following gem. Wisner et al (2005) found that a strong predictor of intent to continue volunteering was encouraging volunteers to take time out for reflection (Einolf 2018).

Why volunteer?

In Canada, people volunteer for many reasons. A report published by Statistics Canada based on 2010 data indicated that when volunteers were asked the reasons for volunteering 93% said to contribute to their community. Other reasons of interest included: making use of their skills and experiences (78%), their friends volunteer (48%), exploring one's own strengths (48%), opportunity for networking with or meeting other people (46%) and improving job opportunities (22%). Volunteers also said they acquired skills through volunteering, including interpersonal skills (64%), communication skills (44%), organizational or managerial skills (39%) and increased knowledge (34%). (Vézina and Crompton 2012)

While this data reflects volunteers, who provided unpaid help to schools, religious organizations, sports and community associations it does provide insight into motivations. There are potentially important differences between community-based volunteering, and volunteering for professional associations (Gazley 2012) as well as within and between different types of associations (Hagar 2014). Some members in professional associations see little opportunity or incentive to interact, while others actively engage and coproduce content that enhances their career opportunities and develops the broader field (Hagar 2014).

There are several motivators and benefits that encourage me to volunteer with the OFPA:

To learn more about the organization and make an informed contribution to the regulation of the practice of professional forestry in Ontario. I graduated from an accredited forestry program in Ontario in 2001 but during my career have not provided services within the scope of practice (Professional Foresters Act 2000, c. 18, s. 3 (1)) so I did not have a clear picture of the role of the OPFA. I do not want to be critical of the OPFA without understanding what professional forestry regulation involves and the role the OPFA plays. This position has given me many opportunities to learn more about the OPFA.

To contribute to Ontario's organization of professional forestry and honour my duties to Ontario's forests. Like those who contribute to community causes, I see importance in using my knowledge and skills to give back. While I might not provide services within the scope of practice, my experiences have provided me with an opportunity to contribute to mission of the OPFA and to fulfill the code of ethics. It is important for me to continuously improve my forestry science skills and use my knowledge and skills to aid public awareness of forestry in Ontario.

Volunteering is connected to early life experiences (Vézina and Crompton 2012). The importance of volunteering has been passed down to me from my parents and I would like to inspire my children to get involved when they have something to say or want to make a difference.

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What is holding us back?

Lack of time is the biggest barrier to people becoming involved in volunteering. About two-thirds of Canadians aged 15 and over who had not done any formal volunteering in 2010 said that their key reasons were not having enough time (67%) and the inability to make a long-term commitment (62%) (Vézina and Crompton 2012). Interestingly, 45% of non-volunteers had not become involved because no one had asked them to, which suggests they might sign up to volunteer if they were approached the

How can we encourage volunteerism?

- Don't make assumptions about who is available for volunteer tasks (Nesbit and Gazley 2011). There are different reasons why people might be interested in volunteering. Don't presume disinterest, ask someone if they would like to be involved.
- Design good volunteer jobs and satisfy volunteers' motivations. Volunteers who said they had high-quality jobs were more likely to feel satisfied with their volunteer work (Einolf 2018). This could include describing positions and their time requirements so members can determine if it is a good match.
- Encourage a supportive environment and recognise volunteer contributions (Einolf 2018). I am continually grateful for the editorial board support and the kind letters we receive.
- In some cases OPFA volunteer activity may help meet a member's self-described continuing education needs, however volunteering for the OPFA will not provide a practising member all the continuing education that they need (OPFA 2016). The OPFA is a regulator of a profession and is not a not-for-profit or advocacy organization.

The OPFA has established committees, task teams and working groups to ensure the maintenance of a high standard of professional practice by members of the Association - see https://opfa.ca/about-us/committees/ for details. All Committees and Working Groups function through the volunteer efforts of OPFA members. The OPFA maintains a database of members interested in volunteering, if you are interested in any opportunities please contact Fred Pinto. A Blueprint for Success (page 3) also outlines numerous ways we can make a difference. I encourage you to reflect on your motivations and look for opportunities that are a match to your skills, knowledge and expertise.

References

Einolf, C. (2018). Evidence-based volunteer management: A review of the literature, Voluntary Sector Review, 9(2), 153-76.

Gazley, B. (2012). Predicting a volunteer's future intentions in professional associations: A test of the Penner model. Nonprofit and Voluntary Sector Quarterly 42, 6, 1245–67.

Nesbit, R., & Gazley, B. (2012). Patterns of volunteer activity in professional associations and societies. VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 23(3), 558–583.

OPFA 2016. PRACTICE GUIDANCE Competency Support Approved by Council: June 24, 2016, 1-24.

Professional Foresters Act, 2000, S.O. 2000, c. 18Professional Foresters Association Regulation. 2001. O. Reg. 145/01, s. 1 (2). Retrieved from https://www.ontario.ca/laws/regulation/010145

Vézina, M., and Crompton, S. 2012. Volunteering in Canada. Canadian Social Trends, 33, 1-21.

Wisner, P.S., Stringfellow, A. Youngdahl, W.E. and Parker, L. 2005. The service volunteer loyalty chain: An exploratory study of charitable not-for-profit service organizations, Journal of Operations Management, 23, 143–61.

Obtaining your Continuing Education hours under COVID-19 restrictions

Fred Pinto, R.P.F., Executive Director, OPFA

The maintenance of a regulated professional's competency is very important as it enables us to better protect the public interest. According to OPFA's By-laws, Article 14-9 specifies that "Every Member shall accumulate a minimum of sixty (60) hours of relevant continuing education activities during every rolling three-year period, plus such further learning as is suggested by their Learning Plan and shall retain a record of the nature of these learning activities and shall annually report the activities in the manner established by Council". This requirement applies to all Full, Associate and Non-resident Members.

Many practising registrants obtain their continuing education hours through in-person sessions such as the OPFA annual conference and other similar conferences. As these opportunities will not be available this year and possibly longer you are advised to review your Learning Plan and revise it to ensure you have alternative learning opportunities to enable you to meet the requirements of your continuing education obligation. The sooner you review and update your Learning Plan the easier it will be for you to meet your continuing education obligation.

Photo credit: Fred Pinto.

Standard Limited Scopes Of Practice Ready For Use

Louise Simpson, Registration Manager

Associate Members are valued members of the OPFA, who may not have all of the required competencies for Full Membership but are competent within specific areas of professional forestry. They use the designation Associate R.P.F. (valid only in Ontario) and work within a defined scope of practice. These scopes of practice may be unique to the individual, but many involve similar areas of professional forestry. The Private Land Working Group and the Urban Forestry Working Group, with assistance from OPFA staff, worked hard over the last year to produce four draft Standard Limited Scopes of Practice based upon afforestation, woodlot management, forest bylaw enforcement, and urban forestry. These were reviewed and approved by the Registration Committee this year.

The Standard Limited Scopes of Practice provide templates that applicants for Associate Membership may choose from when developing their own proposed scope of practice; providing a list of professional forestry services that an Associate Member could offer under the scope of practice and the competencies that are required to undertake this work. These Standard Limited Scopes of Practice have already begun to be used by some Provisional Members who are applying for Associate Membership.

Whether applying under a unique scope of practice, i.e. a scope of practice developed for one candidate , or a Standard Limited Scope of Practice, all applicants for Associate Membership have to successfully demonstrate that they meet all of the required competencies to work within that scope of practice, as well as meeting the other standard registration requirements. Their final scope of practice must be approved by our Registration Committee and the Associate Member must agree, and report annually, that they are only working within their scope of practice.

You can now view the Associate Member Standard Limited Scopes of Practice on the Members section of the OPFA Website.

OPFA Webinars Are Coming to You!

Louise Simpson, Registration Manager

As you know, we held the first virtual Annual General Meeting this year on June 17 using Zoom Webinar software. This software has enabled us to adapt to the challenging situation with COVID-19, and keep the OPFA running effectively, despite being unable to meet in person. As part of the OPFA's strategic plan, we were already researching options to invest in webinar software to improve our ability to interact with our members before COVID-19 arrived. Now that the software is up and running, OPFA webinars will soon become a regular occurrence!

These webinars will be open to all members and will try and address the needs of different membership groups. The webinars will address a variety of topics and may include guest speakers. Some of the webinars will be aimed at Provisional Members; to provide additional assistance for various aspects of the registration process. Some of the webinars will be aimed at practicing members; to keep them up- to -date on important issues and changes, and some webinars will be designed for all members. Please watch for our emails and the members section of the website, where we will be announcing upcoming webinars!

Grey Areas
A COMMENTARY ON LEGAL ISSUES AFFECTING PROFESSIONAL REGULATION
SML Steinecke Maciura LeBlanc Barristers & Solicitors

When Should Regulators Enforce "Someone Else's Law"?

by Erica Richler
June 2020 - No. 247

Practitioners are expected to obey the law. Especially laws that apply to their practice or reflect on their integrity. However, a recurring issue arises as to how involved regulators should become in enforcing the laws of other entities (e.g., government, other regulatory bodies). Typically, they enforce their own laws.

The issue is simple where the primary enforcement body makes a finding about conduct that is clearly improper for a member of the profession. But what about situations where someone is attempting to involve the regulator rather than the primary enforcement body? This could occur for various reasons including: a lower cost to the complainant, a desire to avoid having to gather the evidence, the promise of a ready appeal mechanism or the goal of causing damage to the livelihood of the practitioner.

Regulators could be asked to enforce "someone else's law" in many circumstances:

1. An upset client complains that a practitioner breached their privacy by disclosing sensitive personal information about them, despite the fact that the Information and Privacy Commissioner is the principal enforcement body.
2. An employee of a practitioner asserts that the practitioner harassed them based on gender and race despite the availability of remedies through the Human Rights Tribunal.
3. A third party insurer reports that a practitioner gave in-person treatments during the pandemic for routine matters despite the emergency order to close establishments for everything but urgent care.

It is fairly clear that the regulator generally need not await the outcome of the primary enforcement body: *Berge v College of Audiologists and Speech-Language Pathologists of Ontario*, 2016 ONSC 7034, http://canlii.ca/t/gvtpb; *Dufault v British Columbia College of Teachers*, 2002 BCSC 618, http://canlii.ca/t/4vzn. Even where an argument could be made that the regulator has no jurisdiction to enforce the statute (e.g., a federal offence provision), the conduct will often have aspects of integrity or ethical implications that make it relevant to the practice of the profession: *Law Society of Saskatchewan v Abrametz*, 2016 SKQB 320, <http://canlii.ca/t/gv5r4>.

There are a number of arguments supporting the involvement of regulators in the enforcement of "someone else's law", including:

1. Often the conduct is quite relevant to the suitability of the practitioner to be a member of the profession. The reputation and credibility of the profession would be damaged if no action were taken. For example, respect for women, children, people with disabilities and for Indigenous peoples, racialized or religious groups is essential to the effectiveness of the profession and the regulator should act even if there is another available enforcement mechanism.
2. Regulators need to be "good citizens" and should be part of the solution for significant societal issues. For example, during the pandemic, leaving enforcement of physical

distancing measures solely to the police is insufficient and often counter-productive. All societal organizations need to help communicate (and, in some cases, even help enforce) the nature and rationale for the provisions.

3. Regulators which routinely refer conduct concerns to other enforcement bodies become irrelevant. Who needs a regulator who ducks responsibility for behaviour by their members because someone else can also deal with it?
4. Regulators often are obligated by their enabling statutes to process complaints and concerns. Exceptions are often limited (e.g., where a complaint is frivolous or vexatious). Members of the public who have a concern often choose to approach the regulator because they do not wish to pursue other options. For example, some people deliberately bring sexual abuse concerns to a regulator rather than the police because they may wish to avoid participating in the criminal justice system.

Of course there are countervailing considerations as well, including:

1. For some matters, regulators of professions may not be best suited to enforce the requirements. The primary enforcement body may have special investigative powers (e.g., to require the employer of the practitioner to provide information), added expertise (e.g., workplace safety, employment relations) and extra enforcement options (e.g., immediate compliance orders) that the regulator may not possess.
2. The issue may be of marginal relevance to the practice of the profession or public confidence in the regulator. It may even distract the regulator from its core mandate. For example, is it appropriate for a regulator to expend resources on investigating and dealing with a practitioner who has had several by-law infractions because their loud dog has bothered the practitioner's neighbours? The concern may be legitimate, especially to the neighbours, but the regulator's involvement may not be warranted.
3. The issue may involve delicate judgment calls or interpretation questions that are best left to the primary enforcement body, otherwise, inconsistent results may occur. For example, regulators may not be the best option for interpreting a client's entitlement to a benefit or funding under a specialized social assistance program.
4. In some, usually rare, cases the person raising the issue is unhappy with the decision of the primary enforcement body and is searching for another enforcement body hoping for a different outcome. Similarly, a party to a dispute, for example, in an employment setting, may wish to involve the regulator in a dispute in order to put pressure on the other party or as a means for obtaining evidence for their case.

Given these competing considerations, regulators should carefully consider when it should get involved in enforcing "someone else's law". A principled approach should facilitate a consistent, public interest and practical approach to such complaints and concerns. Those principles might involve the following:

a. As a starting point, processing those concerns where the regulator is obliged to do so under the terms of its enabling statute.

b. Where the regulator has discretion, lean towards taking action on concerns that impact public safety, reflect on the integrity or ethics of the practitioner, or otherwise fit within the public interest mandate of the regulator.
c. In appropriate cases where the regulator has discretion, providing information about their options to the person raising the concern without actively discouraging the individual from using the regulator's process. Many regulators are already doing this where it appears that the complainant is under the misapprehension that the regulator can award monetary damages.
d. Where the regulator has discretion, lean towards declining to take action on the concerns where there is a compelling reason for not doing so, such as where the regulator cannot deal with the issue effectively, where the concern has little impact on the suitability of the practitioner, or where it would be an abuse of process to deal with the concern.

A thoughtful approach to this issue will help protect the public and enhance the relevance and reputation of the regulator without imposing an undue burden on practitioners or the regulator itself.

Part 2 of a report from Carla Rhyant, Executive Director of the Association of Alberta Forest Management Professions (AAFMP) summarizing recommendations. Part 1, summarizing the findings was published in the March 2020 newsletter.

Summary Report of Recommendations Pertaining to Regulatory Frameworks

Prepared by Carla Rhyant, MA, Executive Director, AAFMP

Over the course of the last year, in my capacity as the Executive Director of the Association of Alberta Forest Management Professions (AAFMP), I have attended several conferences and meetings that are focused on professional regulation across Canada. This is a summary of the primary recommendations that have been made by speakers at these events as well as what has been presented in commissioned reviews that have been conducted of professional regulatory organizations across the country.

There are several common trends surfacing in the reviews conducted on regulatory organizations across Canada. The following are the most frequent recommendations proposed.

1. Improved governance to increase transparency and public confidence including (BC Office of the Ombudsman, 2014); (Cayton, 2018); (College of Nurses of Ontario's Council's Leading in Regulatory Governance Task Force, 2017); (Haddock, 2018); (KPMG, 2019); (OECD, 2014); (Steering Committee on Modernization of Health Professional Regulation, 2019):
    - Competency or merit-based board appointments to Councils and standing committees based on competencies, governance, leadership and regulation (protecting the public interest), and analytic, strategic and creative thinking experience and skills instead of an election process
    - Strive for balanced numbers of public and registrant Council members (and often recommended that their services are paid for by the PROs)
    - Reduce the size of Councils
    - Minister appointed Councils
    - Reduce the number of standing committees
    - Terms of office extended to three-years
    - Improve Council ability to pass bylaws
    - Shift to a risk management framework to monitor and manage risk
    - Improve training for Council, committees and registration assessments
    - Discontinuation of membership in organizations and annual general meetings.
2. A reduction in the number of regulatory colleges through the implementation of umbrella legislation (Cayton, 2018); (Kennedy, 2019); (Steering Committee on Modernization of Health Professional Regulation, 2019):
    - A transition to fewer regulatory organizations
    - Maintain the current regulated professions
    - Any new professions be regulated by an existing regulatory organization
    - The creation of broader legislated merger provisions to minimize disruption resulting from future amalgamations.

    a. Benefits of umbrella legislation include (Cayton, 2018); (BC Office of the Ombusdsman, 2014); (Haddock, 2018); (Kennedy, 2019); (Steering Committee on Modernization of Health Professional Regulation, 2019):
        - Improved cost efficiency and effectiveness, especially for the smaller regulatory organizations to avoid duplication or achieve economies of scale
        - Provides sufficient funds for the smaller regulated originations to be regulated

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- Provides consistency through umbrella quality assurance programs including:
  - disciplinary processes (including investigations, reporting on reasonings, sanctions etc.)
  - code of ethics, standards of practice and continuing competence programs
  - handling of sexual abuse and sexual misconduct
  - whistleblower protection
- Guidance on the thresholds for incompetent or negligent practice, evaluating the public interest aspect of professional work etc.
- Reduces the potential for perceived of real bias
- Enhanced public protection, transparency and confidence in professional regulation and safety
- Clarification of public member duties and reporting requirements
- Interprofessional collaboration and expertise.

3. Creation of an oversight body and/or review board, paid for by the regulatory organizations, with the following responsibilities is proposed (Cayton, 2018); (BC Office of the Ombusdsman, 2014); (Haddock, 2018); (Steering Committee on Modernization of Health Professional Regulation, 2019):

   - Routine audits of regulatory colleges based on clear performance standards
   - Public reporting on common performance standards
   - Conduct systemic reviews and investigations
   - Review of registration and complaint investigation decisions
   - Review PRO decisions on all regulatory activities
   - Publish guidance and improvement on regulatory policy and practice
   - Establish a range of standards of professional practice
   - Development of model bylaws and oversight of the process for bylaw amendments
   - Oversee a board member appointment process
   - Recommend health occupations that should be regulated under the Health Professions Act
   - Hold a list (single register) of all regulated health professionals
   - Hold a list (single register) of all regulated health professionals
   - Collection of fees from the regulatory colleges.

4. Increased accountability to Government (Cayton, 2018) (BC Office of the Ombusdsman, 2014); (Haddock, 2018); (Steering Committee on Modernization of Health Professional Regulation, 2019):

   - Annual reports of regulatory organizations and the oversight body be provided to the Legislative Assembly by the Minister
   - Standardization and consistency of reporting.

5. Authorization of professional organizations to regulate the firms or corporate structures that employ those members, recognizing organizations significantly influence the work environment and decisions of professionals. (Haddock, 2018):

6. Professional organization duties and objects to be focused only on regulation of the profession and the public interest, and not include advocacy or representation of member interests as there is evidence in the regulatory literature that election of members of a regulatory board sets up an inherent conflict and potential misunderstanding of the role among members of the profession who believe they are being represented (College of Nurses of Ontario's Council's Leading in Regulatory Governance Task Force, 2017); (Haddock, 2018).

7. Discontinue the use of the term “member” and replace it with “registrant” (Cayton, 2018); (Haddock, 2018).

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Furthermore, use of the title College is being shown in public consultations to be confusing to the general public and it is recommended that the regulatory organizations be referred to as regulators (Pettifer & Petty, 2019).

8. Regulatory organizations need to increase transparency in carrying out regulatory activities (Cayton, 2018); (College of Nurses of Ontario's Council's Leading in Regulatory Governance Task Force, 2017); (Haddock, 2018); (Steering Committee on Modernization of Health Professional Regulation, 2019). Recommendations included opening meetings to the public, posting complaints decisions, improving communication and documentation of registration practices, improving websites, improving annual reporting to the Ministry and posting median timelines for application processes.
9. Regulatory organizations should endeavour to work collaboratively with other PROs to develop consistency between processes and reporting so as to assess performance and benchmark practices against other organizations (Cayton, 2018); (Haddock, 2018). This would include:
    - Best practices for governance
    - Guidance on assessing the public risk aspect to professional work
    - Alignment of codes of conduct
    - Alignment of areas of practice
    - Guidance and alignment on standards of practice and the thresholds for incompetent or negligent practice
    - Best practices on investigations, determining amount of evidence needed for complaints to proceed to investigations, reporting complaint outcomes, including transparency and privacy issues such as the adequacy of reasons and naming of individuals and determining appropriate sanctions
    - Guidance on how professional organizations can address competency issues for professionals seeking registration under labour mobility agreements, such as the New West Partnership Trade Agreement and Canadian Free Trade Agreement
    - Best practices on registration practices
    - Best practices on quality assurance programs
    - Measuring outcomes of regulatory activities
    - Best practices on internal audit processes.

Regulatory organizations across all sectors need to take a long and serious look at the recommendations within the reports that have been conducted and ask whether our organizations are going to be relevant in the future if we are not willing to start making some pro-active changes to how we function.

References

BC Office of the Ombudsman. (2014). Striking a Balance: The Challenges of Using a Professional Reliance Model in Environmental Protection – British Columbia's Riparian Areas Regulation. Retrieved from https://www.bcombudsperson.ca/sites/default/files/Public%20Report%20No%20-%2050%20Striking%20a%20Balance.pdf

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Cayton, H. (2018). *An Inquiry into the performance of the College of Dental Surgeons of British Columbia and the Health Professions Act.* Retrieved from https://www2.gov.bc.ca/assets/gov/health/practitioner-pro/professional-regulation/cayton-report-college-of-dental-surgeons-2018.pdf

College of Nurses of Ontario's Council's Leading in Regulatory Governance Task Force. (2017). *Final Report: A vision for the future. Leading in Regulatory Governance Task Force.* Retrieved from http://www.cno.org/globalassets/1-whatiscno/governance/final-report---leading-in-regulatory-governance-task-force.pdf

Haddock, M. (2018). *Professional Reliance Review: The Final Report of the Review of Professional Reliance in Natural Resource Decision-Making.* Independent Report. Retrieved from https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/professional-reliance/professional_reliance_review_final_report.pdf

Kennedy, A. (2019). Umbrella Legislation: Effective Regulation of Multiple Disciplines Under One Regulatory Body. *Canadian Network of Agencies for Regulation Conference.* Quebec City, QC.

KPMG. (2019). *Governance Review of the Real Estate Council of Alberta.* Retrieved from https://open.alberta.ca/dataset/fc195f9e-7974-4513-a4c7-655d9f29e2df/resource/3adbbbc7-2bb3-4a64-b784-91a67a5253e4/download/reca-governance-review-final-report-release.pdf

OECD. (2014). *The Governance of Regulators: OECD best practice principles for regulatory policy.* OECD Publishing. Retrieved from http://dx.doi.org/10.1787/9789264209015-en

Pettifer, G., & Petty, L. (2019). What the Citizen Advisory Group Tells Us: The Public's View of Regulatory Matters.

Steering Committee on Modernization of Health Professional Regulation. (2019). *Modernizing the provincial health profession regulatory framework: A paper for consultation.* Retrieved from https://engage.gov.bc.ca/app/uploads/sites/578/2019/11/Modernizing-health-profession-regulatory-framework-Consultation-Paper.pdf

This virtual event will take place on Tuesday, September 15th and Wednesday, September 16th, 2020 (detailed schedule TBA) and will include the National AGM, Awards Ceremony, and social events.

Member News

New Full (R.P.F.) Members

Cédric Bertrand
David Cobb
Christen Dschankilic
Alex Emond
Caroline Goulet
Matthew Harding
Dana Keimel
Mitchell Lindsay
Glen Prevost
Camilla Rewucki

New Associate (Associate R.P.F.) Members

Will Cox
Phil Riley

Please welcome and support the following people who have been admitted into the OPFA but are not yet entitled to practice professional forestry in Ontario:

New Provisional Members (R.P.F. in Training) (may practice if under the direct supervision of a qualified member)

Julie Antler
Samuel Asirifi
Michael Barbetta
James Brown
Derian Caron
Amy Chadwick
Allison Craig
Joshua Dejong
Cameron Duckett
Kayla Hayden
Shanagh Hore
Terron James
Rita McGee
Steven Pang
Jessica Sheppey
Abhishek Tripathi
Timothy Trustham

New Student Members

Gerard Arsenault
Ashley Baker
Kevin Lanoix
Ryan Patterson
Martin Mostert
Amy Wang

The following people are not entitled to practice professional forestry in Ontario but remain members of the OPFA:

New Non-Resident Members-R.P.F.:

Christine Mahlmann

The following people are not entitled to practice professional forestry in Ontario and are no longer members of the OPFA:

Resigned Members:

Steve D'Eon

Deceased Members:

Victor Smith, R.P.F. (Ret.)

Continuing Education

Webinars

Websites that offer free webinars to earn CEUs for your membership maintenance.

1. Canadian Institute of Forestry
https://www.cif-ifc.org/e-lectures/

2. Ontario Ministry of Natural Resources and Forestry. MNRF Science, contact Kristy Mckay, Science Transfer Specialist at Kristy.McKay@ontario.ca

3. Forestry and Natural Resources Webinars
http://www.forestrywebinars.net/

4. Conservation Webinars
http://www.conservationwebinars.net/

5. Urban Forestry Today
http://www.urbanforestrytoday.org/

6. Climate Webinars
http://www.climatewebinars.net/

7. Cornell University
http://blogs.cornell.edu/cceforestconnect/subscribe/

8. How To Do Urban Wood
http://illinoisurbanwood.org/urban-wood-network-announces-how-to-do-urban-wood-webinar-series/

9. Forestry Chronicle
http://pubs.cif-ifc.org/journal/tfc

10. Canadian Journal of Forest Research
http://www.nrcresearchpress.com/journal/cjfr

11. FPInnovations
http://blog.fpinnovations.ca/

Coming Events

Forest Adaptation Webinar Series
January 16, 2020 to June 25, 2020
forestadaptation.org/learn/forest-adaptation-webinar-series

How to account for climate change impacts when designing resource road stream crossings—FPInnovations Webinar Series
June 18 to 25, 2020
http://blog.fpinnovations.ca/blog/2020/06/08/how-to-account-for-climate-change-impacts-when-designing-resource-road-stream-crossings-explore-the-topic-through-this-webinar-series/

Ontario Woodlot Association Annual General Meeting
Zoom webinar
June 30, 2020, 1:00 pm - 3:00 pm
https://www.ontariowoodlot.com/events/eventdetail/341/-/agm-zoom-webinar

CIF-IFC 2020 National Conference and 112th Annual General Meeting - Virtual Event
September 15-16, 2020
www.cif-ifc.org/2020-conference-agm/

Emerging Technologies

UBC Forestry Professor Received 'Nobel Prize of Forest Research' - The 2020 Marcus Wallenberg Prize was awarded to Dr. Nicholas Coops for his work in satellite imagery analysis and modelling.
https://forestry.ubc.ca/awards-honours/nicholas-coops-nobel-prize-of-forest-research-marcus-wallenberg-prize/