

--	--

TO:	CHAIR AND MEMBERS PLANNING & ENVIRONMENT COMMITTEE
FROM:	JOHN M. FLEMING MANAGING DIRECTOR, PLANNING AND CITY PLANNER
SUBJECT:	URBAN FOREST STRATEGY AND IMPLEMENTATION PLAN UPDATE MEETING ON AUGUST 26, 2014

RECOMMENDATIONS

That, on the recommendation of the Managing Director, Planning & City Planner, the following actions **BE TAKEN** regarding the Urban Forest Strategy and Implementation Plan, recognizing that London's tree canopy cover has been reduced from 24.7% in 2008 to an estimated 23% in 2014:

- a) The June 2014 Urban Forest Strategy **BE ADOPTED** for the long term sustainability of London's urban forest, with tree canopy targets of 25% by 2035 and 32% by 2065;
- b) The Urban Forest Strategy Implementation Plan **BE ENDORSED**, outlining the proposed actions to implement the Urban Forest Strategy;
- c) Recognizing that the adoption of the Urban Forest Strategy will result in the expansion of the City's Urban Forestry Program, that the Civic Administration **BE DIRECTED** to submit a Business Case to support the implementation as part of the 2015 Budget process as outlined in this report and for future years as required. It being noted that Council has already supported enhanced community planting efforts through the 2014 budget process for action item 9.3 of the Strategy;
- d) Civic Administration **BE DIRECTED** to prioritize the creation of a cross-divisional implementation team by November 1, 2014 to ensure the coordination of implementation of the Urban Forest Strategy;
- e) Civic Administration **BE DIRECTED** to prioritize the revision of City policies, standards guidelines and practices to better protect and manage City trees;
- f) Civic Administration **BE DIRECTED** to revise the Tree Conservation By-law to improve the protection of trees on private lands noting that is will require an increase in staff and administration levels to implement and enforce, and;

That, should Council wish to establish higher tree canopy cover targets than those recommended by the Urban Forest Strategy, the following actions **BE TAKEN**:

- g) Tree Canopy targets of 28% by 2035 and 34% by 2065 **BE ADOPTED**;
- h) the June 2014 Urban Forest Strategy and the Implementation Plan be utilized as the "framework" for the long term sustainability of London's urban forest and the Urban Forest Strategy and Implementation Plan **BE REVISED** as needed to achieve the revised targets;
- i) In support of new Council-approved tree cover targets, the business case identified in clause c) of the recommendations **BE PREPARED** to reflect the revised targets and Implementation Plan;
- j) As an estimated 75% of the urban forest is on private property and higher canopy targets cannot be achieved without maximum tree protection, Civic Administration **BE DIRECTED** to revise the Tree Conservation By-law to maximize protection of trees on private lands noting that is will require a significant increase in staff and administration levels to implement and enforce

--	--

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- June 25, 2014 6th Report of the Trees and Forests Advisory Committee
- June 10, 2014 Council Resolution
- June 3, 2014 Urban Forest Strategy report to PEC
- April 15, 2014 3rd Report of the Trees and Forests Advisory Committee
- February 12, 2013 Council Resolution regarding TFAC report and comments
- May 7, 2012 UFORE project summary and Urban Forest Strategy report to PEC
- June 21, 2010 UFORE project summary and Urban Forest Strategy report to ETC
- June 7, 2010 Forestry Services Strategic Review report to SRC

BACKGROUND

London is known as “The Forest City”. City Council’s strategic plan states that we “*value and protect our environment*” and that “*the decisions we make are environmentally responsible for today and sustainable for tomorrow. We are a community that is growing but understands it must take a careful and balanced approach to preserving and protecting our natural environment, knowing it is essential to our prosperity, sustainability and quality of life.*”

The Urban Forest Strategy (Strategy) provides the vision and strategic direction for the long-term management of the urban forest. The Strategy identifies **what** we aim to achieve; it is complemented by an Implementation Plan which identifies **how** we will achieve it, the resources required and expected timeframe for various actions.

The Urban Forest Strategy and its Implementation Plan answer the following questions:

- What have we got?
- What do we want?
- How do we get what we want?
- Are we getting what we want?

The Strategy provides the guiding principles and management actions and is intended to be reviewed every 5 years as it relies on adaptive management to ensure long term objectives are achieved. The Strategy supports and implements the Official Plan policies and Council direction to become one of the greenest cities in Canada.

Extensive public and stakeholder consultation since 2012 was conducted specifically for the development of this Strategy as well as for ReThink London. The messages were very clear that the City needed to do more and do better with respect to managing our urban forest. An overwhelming number of people strongly identify with our brand and London should continue to be called “The Forest City”. The top 3 concerns that were identified from the survey were:

- Overall tree preservation and protection;
- Lack of tree cover, and;
- Protection of heritage/historic trees

The following four key themes or guiding principles were identified and form the cornerstones of the Strategy and Implementation Plan:

- **Protect** more trees on both public and private property where they are providing benefits or supporting the integrity of natural features. The trees that will provide the most services 40 years from now are already in the ground.
- **Maintain and Monitor** existing trees. Proper and regular maintenance will and improve the health and increase the life and value of the trees.
- **Plant more and enhance** the urban forest canopy cover. All trees will die, but cannot be replaced naturally in many urban locations. Strategic planting can maximize the benefits, increase biodiversity and reduce long term risk from damaging agents.

--	--

- **Engage the Community** in the management of our urban forest. Approximately ¾ of all trees in urban areas are privately owned and this percentage is even higher in rural areas. The community can leverage resources and funds that are not available to the City Administration.

An Urban Forest Strategy and Implementation Plan were developed recommending tree canopy cover goals of 25% by 2035 and 32% by 2065. On June 10, 2014 Council referred the Strategy back to staff and report back with respect to:

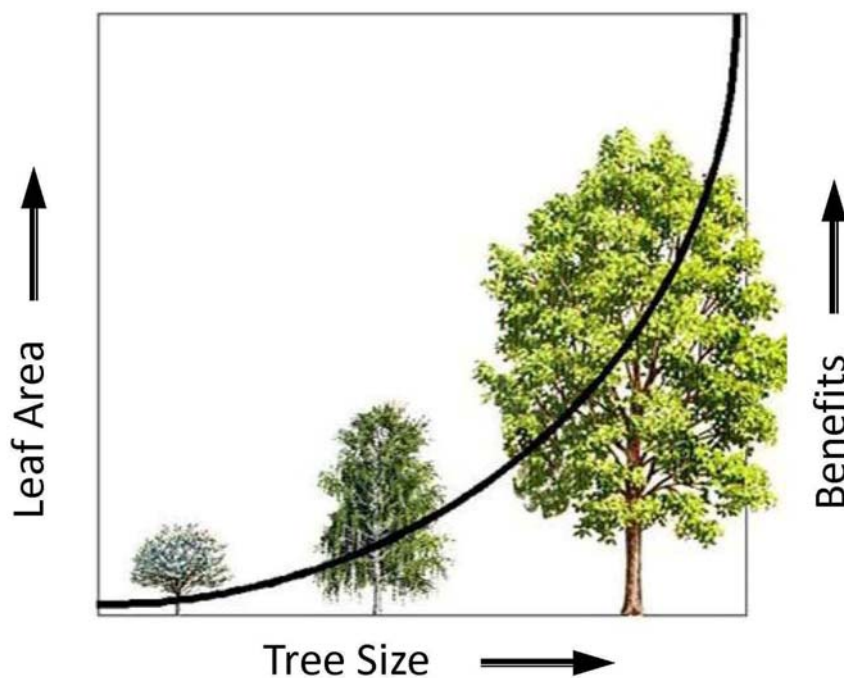
- Incorporating the comments provided at the public participation meeting;
- Increasing the 20 and 50 year targets;
- Asking the Province to allow the City of London to debenture the planting of trees.

INCREASING THE 20 AND 50 YEAR TARGETS

Some Fundamental Concepts to Understand

1) What does 1% tree canopy cover mean?

- The equivalent of 236 hectares across the city or the equivalent of 40 Victoria Parks with a closed canopy (i.e.: no large tree canopy openings, all crowns touching) of healthy trees at maturity which would take about 50 years to achieve.
- The equivalent of a 23,600 10mX10m back yards completely shaded with trees. This would require approximately 5 medium sized mature trees, like locust or linden, for every 4 back yards or approximately 31,000 trees at maturity.
- You may be able to achieve the same cover with approximately 16,000 large stature trees like sugar maple or white oak or 150,000 ornamental sized trees like crab apple. The actual number of ornamentals required over a hundred year period is more than double this amount because they don't live as long as large shade tree species.
- If just 1 tree out a hundred dies each year (this is a conservative estimate of the actual annual mortality rate), half of the trees will have died within 50 years. Therefore we need to maximize the number of larger trees and replace them as soon as possible.
- When it comes to canopy cover, long-term benefits and reduced overall management costs – **TREE SIZE MATTERS**



2) No-Net-Loss of tree canopy

This is a fundamental concept of the Strategy and the achievement of any future targets. It typically takes trees 30-40 years to produce significant environmental benefits. The trees that are in the ground today will provide the majority of the tree canopy cover in 20 years.

Agenda Item #	Page #

This concept includes the following components:

- Trees are removed only after there are no feasible options to retain them. This may require additional maintenance costs in the interim;
- Trees are replanted as soon as possible after removal. Every year delay in replanting reduces our ability to meet both long and short term targets;
- More trees are replanted than removed;
- The larger the tree removed, the more trees are required to replace it. For example, a 90cm diameter tree may be replaced with 9 calliper sized trees and a 30cm diameter tree would be replaced with 3 calliper sized trees, and;
- Where there is not adequate space on the existing property from where the tree was removed, the replacement trees may be planted elsewhere in the City.

Establishing Tree Canopy Target Levels

Setting tree canopy target levels is more challenging than someone may first think. The urban forest is dynamic and constantly evolving and being affected by both environmental and man-caused factors. There are a lot of uncertainties, considerations and challenges that must be taken into account when developing canopy targets including. These include: tree growth and mortality rates; the existing forest structure (species, numbers, conditions, distribution); insects, diseases and storm events; climate change; accommodating development and servicing requirements; level of support by the private sector in managing their portion of the urban forest resources, and; fiscal and operational realities that affect how many resources can be directed to managing the forest. We have to remember that the success of achieving higher target levels depends on addressing all four of the key principles of the strategy – these are all links in the chain of success. As Andrew Kenney, former professor of urban forestry at the University of Toronto and currently the vice-president of Tree Canada’s board of directors, warns about setting very high tree canopy targets - *“The danger is an aggressive push to increase tree planting can draw money away from the important stuff like tree maintenance and forest management.... If the focus shifts from overall forest stewardship and management to simply increasing canopy cover very aggressively there may be a tendency to shift towards tree planting and the rest of the urban forest might suffer”*.

Higher targets than originally proposed can be achieved through a combination of policy changes, improved practices, increased resources, stewardship, collaboration and engagement. This will require a paradigm shift in how the urban forest is viewed and managed. We have to realize that the road to achieving those targets is not fully paved or mapped and we will have to review and revise our plans periodically.

Staff and our consultant agree that we need to take a practical, prudent approach to proposing new tree canopy target levels and increases to proposed programs. Our consultant has provided some recommendations and considerations for increasing the tree canopy target levels and these are included as Appendix A.

The original Urban Forest Strategy tree canopy targets of 25% in 20 years and 32% in 50 years recognize that the urban forest is a constantly dynamic system that is greatly influenced by environmental conditions as well as land use decisions. The Strategy recognizes there are uncertainties and that an adaptive management approach is required to ensure that the long term vision and goals are achieved. The Strategy and Implementation Plan has a built in process whereby targets, management policies, practices and programs are reviewed, revised or adjusted based on new information, gained experience or changes in environmental, social or policy on a 5-year schedule.

The original tree canopy targets, strategy and implementation plan were based on a combination of available information about the state of our urban forest, review of upward and downward pressures on the sustainability of the urban forest, stakeholder input and the ability to develop and deliver a program based on existing and limited anticipated budget and resources.

Agenda Item #	Page #

Staff, stakeholders and consultants have reviewed the Strategy and Implementation Plan and agree that they contain the framework for the support and achievement of higher tree canopy targets and Urban Forestry program. In order to achieve even higher targets, some existing action items may be increased in size or implemented sooner. A few new action items have been added in order to strengthen the ability to achieve higher targets.

When proposing revised higher targets and programs, we have to recognize that the level of uncertainty about the impacts of our assumptions and ability of achieving our objectives increases. We also have to recognize that the cost of achieving the targets increases exponentially the closer we approach achieving the target levels. It is easier and cheaper to achieve the first few percent increases in canopy cover than the last few.

Some key challenges and uncertainties in achieving the current and higher tree canopy target levels include:

- Continued reduction in the tree canopy since 2008 due to EAB, development, aging forest, infrastructure renewal and other environmental factors;
- Reconciling natural heritage and urban forest objectives with the need to accommodate development and redevelopment;
- Development pressures that reduce the opportunities to plant trees;
- Conflicts between trees and other municipal infrastructure;
- How much actual plantable land base is there on public and private land considering existing and planned development;
- Optimizing tree growing conditions during development planning and in difficult environments;
- Growing an urban forest that is resilient to climate change and difficult urban growing conditions;
- Supporting the entire community to become fully engaged in the establishment and maintenance of the urban forest and natural areas;
- Current policies and by-laws provide limited protection on the majority of trees within the City, and;
- Historical levels of funding for urban forest management have resulted in an infrastructure gap of \$600K per year and tree replacement lag time in excess of several years.

Some opportunities that exist to help achieve higher targets include:

- Proactive forest health management (e.g.: EAB and invasive species) on public land and encouraging and supporting better management practices on private land;
- Improving the overall survival, growth and health of City trees through lifecycle maintenance programs;
- Reducing development pressure by ensuring that trees that are removed are replaced and that opportunities for the expansion of the urban forest canopy are identified where there is less intensification pressure or limited plantable space exist;
- Reduce tree and infrastructure conflicts by working with other disciplines to find planning and design solutions ensuring fewer trees are removed;
- Applying best management practices to establish adequate above and below ground space and quality soil volumes that allow establishment and growth of longer-lived and larger trees where possible through development;
- Recognizing and managing the urban forest is as critical component of mitigating the effects of climate change and incorporating the natural heritage system and the urban forest into adaptation strategies;
- Improving tree maintenance and protection on private property by increasing the understanding of the importance of the urban forest as a community resource and the educational campaigns and stewardship programs aimed at City staff, stakeholders and the community as a whole, and;
- Improving community awareness and engagement by building on existing partnerships and programs and creating new ones that can leverage additional funding and resources that are not available to the City.

Agenda Item #	Page #

Based on Council direction, reviewing existing information from London and other municipalities, and taking into account stakeholder and other public input we have identified 3 tree canopy target scenarios (Table 1). We have also included some preliminary estimated costs associated with each of the scenarios in Table 2.

City Wide (All Land Use Types)	Target Canopy Cover 2035	Target Canopy Cover 2065	Estimated Required Budget Total
Current Canopy Target	25%	32%	26.1 M
Canopy Target Scenario 2	28%	34%	37.7 M
Canopy Target Scenario 3	30%	40%	55.7 M

Table 1. Tree canopy cover target scenarios and estimated 20-year program budget requirements.

An extensive review of the Strategy and Implementation Plan was conducted to determine what revisions would be required to achieve tree canopy target levels. The current Strategy and Implementation Plan contained most of the elements or “framework” required to achieve higher tree canopy target levels. With few exceptions, higher target levels can be achieved using the same guiding principles and priorities and adjusting some action items related to their implementation such as:

- Increasing resources and capacity
- Increasing existing program levels
- Moving certain action items forward in time
- Obtaining better and more timely information

Current Canopy Target Scenario 1: 25% by 2035 and 32% by 2065

Despite initial reaction by some to the current strategy, this scenario is aggressive considering the uncertainties of the current information, rate of change in the structure of the urban forest and historical staff and funding resources for the Forestry program. **When achieved, these targets would increase the long-term tree canopy cover to 40% over estimated 2014 levels by 2065.** It includes the no-net-loss of tree canopy concept and a gradual ramping up of the urban forestry program and policy development.

Canopy Target Scenario 2: 28% by 2035 and 34% by 2065

When achieved, these targets would increase the long-term tree canopy cover to 48% over estimated 2014 levels by 2065. These targets are achievable if the current Strategy is augmented with a substantially higher commitment to protecting and increasing tree canopy cover on private and public land. There is uncertainty about achieving the short term target levels due to available information about tree growth and mortality and ability to improve management practices in such a short period of time. We may not be able to practically achieve the 2035 target level because of how long it takes for trees to contribute, but we also know that existing trees will get bigger to provide some of the cover. However our short-term programs should be developed to achieve them as they are critical to achieving our long-term goals. There will be an opportunity to our review our short-term goals in five years.

Some existing (action item number in brackets) and new actions (N) to achieve these targets are shown in Appendix B:

Canopy Target Scenario 3: 30% by 2035 and 40% by 2065

If achieved, these targets would increase the long-term tree canopy cover to 74% over estimated 2014 levels by 2065. There is considerable uncertainty about achieving these targets because of the current level of information available and the limited amount of plantable space that has been identified in the UFORE analysis and given constraints of available land and development patterns. The analysis showed that there is only 19% plantable space which includes areas that may never be planted (such as residential lawns, fields, school grounds, manicured Parks and sports fields). To exceed the 32% target a substantial area inside the Urban Growth Boundary would have to be afforested rather than developed, or existing

--	--

developed sites reclaimed; this would most likely be achieved through land acquisitions specifically for afforestation, over and above what is currently acquired through City policies for environmental, recreational and amenity purposes. This land acquisition is costly and would add an unknown amount to the budget requirements.

Staff do not recommend these tree canopy target levels at this time due to:

- Uncertainty of information and unknowns regarding program costs
- Ability to increase the program levels in such a short time
- Lack of identified plantable space
- Cost of purchasing and afforesting private lands outside current policies

These potential targets can be revisited during the first review and update of the implementation strategy in 2019 as more information is available and the status of the achieving the targets is evaluated.

Tree Canopy Cover Scenarios and estimated preliminary program costs are shown in Table 2 below. Note that these budget estimates are over and above the existing Forestry budgets and the funding required to address the infrastructure gap. They are intended to be revised as detailed plans are developed over the next couple of years.

5-Year Projected OPERATING Investments (X \$1,000)						
% TREE CANOPY COVER TARGETS : SHORT TERM (2035)/ LONG TERM (2065)	2015	2016	2017	2018	2019	20 Year Program Cost
25/32%	190	22	330	365	0	6,500
28/34%	875	600	500	865	500	9,300
30/40%	875	1,225	500	865	500	13,900
5-Year Projected CAPITAL Investments (X \$1,000)						
% TREE CANOPY COVER TARGETS : SHORT TERM (2035)/ LONG TERM (2065)	2015	2016	2017	2018	2019	20 Year Program Cost
25/32%	137	258	663	663	663	19,600
28/34%	837	1,480	2,300	2,200	800	28,275
30/40%	837	4,480	7,480	?	?	41,000+

Table 2. Estimated short term costs associated with tree canopy target levels. Because of uncertainties about the cost of additional land acquisitions required to achieve 40% tree canopy cover target levels, cost estimates have not been estimated for beyond the first three years.

Agenda Item # Page #

--	--

INCORPORATING COMMENTS PROVIDED AT THE PUBLIC PARTICIPATION MEETING

We appreciate the public and stakeholder support for the Urban Forest Strategy both at the Planning and Environment Committee Meeting and through the development of the Strategy and the ReThink London process. Subsequent to the June 3, 2014 public meeting, staff met individually with representatives of London Development Institute, London Middlesex Health Unit, London Hydro, Upper Thames River Conservation Authority and ReForest London.

Staff comments and additional details are provided in Appendix C and have stratified into three general categories for response purposes:

1. Increased tree canopy targets
2. Setting woodland cover targets
3. Food production

DEBENTURING THE PLANTING OF TREES

At this time, it is not technically possible to borrow funds for tree planting as trees are not considered tangible capital assets. Through the Corporate Asset Management process, it was demonstrated that trees, unlike other infrastructure, actually increase in value over time.

Civic Administration will be preparing a letter to the province requesting that trees be eligible for debenture funding as most of the benefits from trees planted today will be realized in the future.

SUMMARY

As directed by Council on June 10, 2014, staff have reviewed the Urban Forest Strategy and Implementation Plan with respect to increasing the tree canopy cover targets. Implementation issues and opportunities have been identified with respect to higher target levels.

London is at a crossroads in the management of its urban forest because of environmental and social pressures. London cannot afford to wait longer to approve and implement an Urban Forest Strategy. Achieving higher than current tree canopy levels requires a paradigm shift in thinking about the urban forest as community and environmental assets and in the way they are managed on public and private property. We recognize that there are uncertainties in upward and downward pressures on the existing canopy and that considerable additional resources will be required to maintain and enhance our urban forest. Many Cities in Canada have recently developed or updated urban forest strategies and increased their level of funding and recognized that historical policies, practices and levels of funding have been inadequate. Other municipalities such as Toronto, Hamilton and Oakville have significantly increased their forestry budgets in order to achieve their target levels. For example Toronto, is planning on increasing its current annual budget from \$55m to \$100m by 2022 to increase their target from 28%-40%. Hamilton's current budget is almost \$10 million per year and they think that is insufficient to achieve their target level of 36%. London's current Forestry budget is \$4.3 million per year.

The end result will be a forest management program that: supports and implements the vision and goals of the Official Plan; will maintain the City of London's identity as "The Forest City", and; will leave a proud environmental legacy for future generations of Londoners.

--	--

To support the Council adopted tree cover targets, Staff will develop:

- A revised Implementation Plan as needed;
- A revised Business Case to address additional staff and capital as needed. Funding in support of the Business Case will need to be approved for 2015 to kick-start the implementation of the strategy and to begin achieving the approved goals and targets;
- A revised Tree Conservation By-law to protect trees on private property identifying resources required for administration and enforcement;
- A Business Case to address the Forestry infrastructure gap, and;
- Future Business Cases to support the revised Implementation Plan as required.

Acknowledgements: Sara Rowland, Urban Forestry Planner; B.A. Blackwell and Associates Ltd.; Trees and Forests Advisory Committee, and; stakeholder groups and residents who have provided their input into this strategy.

PREPARED BY:	SUBMITTED BY:
IVAN LISTAR, R.P.F. MANAGER, URBAN FORESTRY	ANDREW MACPHERSON, OALA MANAGER, ENVIRONMENTAL & PARKS PLANNING
RECOMMENDED BY:	
JOHN M. FLEMING, MCIP, RPP MANAGING DIRECTOR, PLANNING AND CITY PLANNER	

cc: Trees and Forests advisory Committee

EEPAC

y:\shared\urban forestry\pec reports\working\August 26, 2014 urban forest strategy report to pec.docx

--	--

Appendix A

B.A. BLACKWELL AND ASSOCIATES LTD.

3087 Hoskins Road, North Vancouver, B.C. V7J 3B5
Telephone: (604) 985 8769 Fax: (604) 985-8781
www.bablackwell.com

July 30, 2014

Ivan Listar R.P.F.
Manager, Urban Forestry
Planning Division
383 Richmond St. Suite 1102
London, Ont. N6A 3C4

RE: RECOMMENDATIONS ON REVISED CANOPY TARGETS FOR THE LONDON URBAN FOREST STRATEGY

Dear Ivan;

As per your request, the following outlines my opinion on revised canopy targets for London's Urban Forest Strategy (UFS) and the implications to both human and financial resource requirements. You have asked us to provide two additional canopy target scenarios and to comment on the ability of the City of London to achieve these.

The targets that were set for the current Urban Forest Strategy were partially established based on guidance from staff and senior management on the available fiscal and human resources that could be allocated to increasing canopy targets. Blackwell was advised that London was limited to net zero budget growth, and as such we allocated available resources accordingly within the strategy.

It is important to recognize that when setting a high percent canopy target a prudent approach must be taken, particularly given long-term maintenance and monitoring costs that go along with planted trees. It is preferred to consider achieving a lower target that is focused on key management strategies that provide for a quality inventory, maintenance guided by best management practices, appropriate levels of communication with the community, and fits within the fiscal management framework of the City. Additionally, achieving a specific canopy target is determined by the gross area of available plantable space on both public and private property. This is the key limiting factor to achieving higher levels of canopy cover. The City of London controls what can be achieved on public property, but has limited control over what happens on private property, including encouraging and incenting private citizens, businesses, and public institutions to plant and grow large stature trees, and preventing removal of existing trees.

A key consideration in establishing canopy targets is to highlight that there are a number of uncertainties in determining an appropriate canopy for a specific municipality, and each municipality is unique in its ability to sustain a specific percentage of canopy. For example, in London, some of the specific uncertainties include downward pressures on the canopy from Emerald Ash Borer (EAB), development,

--	--

B.A. BLACKWELL AND ASSOCIATES LTD.

3087 Hoskins Road, North Vancouver, B.C. V7J 3B5
 Telephone: (604) 985 8769 Fax: (604) 985-8781
 www.bablackwell.com

and current municipal by-laws that protect canopy. There is also upward pressure on the canopy from the growth of recently planted and young trees established in the last twenty years, which currently provide a limited contribution to canopy, but over time will contribute significantly more cover. A key focus of the strategy and implementation plan is to quantify these upward and downward pressures on the canopy targets to improve and refine our current estimates. However, in the meantime, the lack of information on canopy change creates significant uncertainty in our estimates.

The following table provides a summary of the current canopy target and budget and two additional scenarios to increase canopy cover (Target Scenario 2 and 3) which all project canopy growth to 2035 and 2065 and provide a total budget estimate for the short, medium and long-term. **These budgets are incremental to the existing urban forestry program budget.**

City Wide (All Land Use Types)	Target Canopy Cover 2035	Target Canopy Cover 2065	Estimated Required Budget Total
Current Canopy Target	25%	32%	25.2 M
Canopy Target Scenario 2	28%	34%	37.7 M
Canopy Target Scenario 3	30%	40%	55.7 M

NOTE: Given our current knowledge of the City of London’s urban forestry program, available growing space, and development patterns we believe that, while scenario 2 is very aggressive, it is achievable if properly funded and resourced. Scenario 2 would require a substantial commitment to increasing tree cover on private land (5% through 2065). While you have asked us to develop a target scenario of 40% canopy cover at 2065, it is our professional opinion that this is an unachievable target given constraints of available land and development patterns, even with the suggested budget to plant and manage the resource. The City does not currently have the land base to support this target and substantial green space acquisition would be required to meet it which would add an unknown amount to the budget requirements. It would also run the risk of shifting emphasis to establishment at the expense of tree maintenance and urban forest management.

As the City of London moves the canopy target above the 32% threshold, this may require land purchase/acquisition which will be costly, likely exceeding \$150k/acre, not including afforestation costs.

Additional monies would be allocated in a revised implementation plan to the following areas;

Protect:

- No net loss of tree canopy philosophy, policies, by-laws and practices are required to meet the current canopy targets but will need to be increased even more in each of the higher targets.
- Specifically develop and enforce a “no net loss” tree protection by-law.

Agenda Item # Page #

--	--

B.A. BLACKWELL AND ASSOCIATES LTD.

3087 Hoskins Road, North Vancouver, B.C. V7J 3B5
Telephone: (604) 985 8769 Fax: (604) 985-8781
www.bablackwell.com

- Increased tree protection with additional staff for by law enforcement and developing stronger policies and bylaws to protect existing trees on private property.
- Increase the width of buffer required around existing tree-dominated features so to grow additional tree canopy cover over time.

Maintain and monitor

- Higher levels of investment in inventory specifically establishing species specific growth curves to better estimate canopy growth projections over time.
- UFORE/i-Tree survey conducted every five years instead of ten years to identify changes in the structure and value of the urban forest in a more timely and proactive manner to allow more timely implementation.
- Increased management of maintenance activities including more frequent inspections and reduced pruning cycles.
- Increased detection and management of insect and disease problems.
- Initiate a tree watering and mulch redressing contract for City trees planted less than 3 years prior, and enforce a 3-year warranty period for replacement of trees that fail to establish.

Plant and enhance

- Increased planning and prescriptions to identify areas available for planting on public lands, including fully utilizing available boulevard planting space.
- Increased planting budgets through the life cycle of the plan to include planting more trees as well as hiring two additional staff to administer the higher level of service.
- More intensive tree establishment funding to ensure a high level of survival including watering, mulching, structural pruning and protection.
- Revise zoning and site planning policies to ensure that adequate permeable/plantable area protected or created in order to achieve canopy cover targets on future developments.
- Expand the annual Parkland acquisition program specifically for vacant land for afforestation inside the Urban Growth Boundary and provide a rehabilitation and afforestation budget.
- Require boulevard and yard trees to be planted and maintained at or within the first planting season after occupancy of all new buildings including sub-divisions that are yet to be assumed by the City.

Public engagement

- Greater funding to encourage private property owners to plant on private land – making available trees and management resource to support these activities.

As discussed in our conversation, once you determine the appropriate canopy target and available budget in consultation with council we would be happy to discuss specific revisions of the implementation plan to address the recommendations.

Agenda Item # Page #

--	--

B.A. BLACKWELL AND ASSOCIATES LTD.

3087 Hoskins Road, North Vancouver, B.C. V7J 3B5

Telephone: (604) 985 8769 Fax: (604) 985-8781

www.bablackwell.com

Sincerely,



Bruce Blackwell MSc., RPBio, RPF

B.A. Blackwell and Associates Ltd.

--	--

Appendix B

Some additional actions required to achieve higher tree canopy target levels

Additional Actions For Achieving the 28/34% Tree Canopy Cover Targets			
Plant and Enhance	Protect	Maintain and Monitor	Engage the Community
Review and revise existing development policies and agreements to ensure minimum tree canopy standards for all developments. (e.g.: that a minimum number of yard and boulevard trees are planted (example: minimum 1 tree planted per residence in a new subdivision) and maintained at or within the first planting season after occupancy of all new buildings that are yet to be assumed by the City (N)	Existing policies are reviewed and revised to ensure that no-net-loss policies, by-laws and practices are established and implemented within 2 years as a priority (5.1, 5.5, 5.6, 7.2)	Higher level of investment in keeping the inventory more current and establishing growth curves to better estimate growth and mortality projections (10.1, 10.3, 10.4, 10.5, 11.2, 11.4)	Increased funding to encourage property owners to promote stewardship activities and plant trees on private land by providing trees, incentives, promotional and educational materials and management resources to support these activities (13-18)
Increase planting budgets through the life cycle of the Strategy to driven by tree canopy targets and right tree/right place principles and well as providing additional resources to administer the larger program and improve the level of service (2.7)	Additional 5-7 staff for enforcement of policies, by-laws and practices (5.1, 5.2, 5.4)	Conduct a UFORE/i-Tree analysis every 5 years instead of ten years in order to identify changes in the urban forest structure, function and value and quicker management adaptation (11.2, 11.3)	Hire a Forest Stewardship Coordinator to work with the other City Divisions, agencies, stakeholders, partners and residents to coordinate and enable public education and stewardship activities (N)
Review and revise existing policies, standards and practices to ensure that adequate permeable/plantable area is protected or created in order to achieve canopy cover targets on future developments (1.2, 1.6)	Increase the width of buffers required around tree dominated features in order to grow additional tree canopy cover (4.7)	Increased management of City trees including more frequent tree inspections and tree maintenance cycle reduced from an average of 10 years to 5-7 years (8.2, 9.5)	
Expand the parkland and woodland acquisition programs and provide associated rehabilitation and afforestation budgets (N)		Introduce a tree watering and mulch redressing program for City trees and develop and enforce a 3 year warranty period for newly planted trees (N)	

--	--

Appendix C

INCORPORATING COMMENTS PROVIDED AT THE PUBLIC PARTICIPATION MEETING

We appreciate the public and stakeholder support for the Urban Forest Strategy both at the Planning and Environment Committee Meeting and through the development of the Strategy and the ReThink London process. Many of the recommendations are already incorporated in the existing strategy and will be implemented during implementation. Staff responses have been stratified into general categories for response purposes:

- 1. Increased tree canopy targets
- 2. Setting woodland cover targets
- 3. Food production

1. Increased tree canopy cover targets

This report provides higher targets and implementation issues and recommendations. Comparisons were made with made with targets from other municipalities. Each municipality has unique abilities to achieve their targets. These were developed specifically for their municipalities and so a direct comparison to London's conditions is not reasonable. We have followed up with some of the municipalities and learned that they are finding it difficult to achieve the high target levels despite budgets that exceed tens of millions of dollars per year. There is a general consensus among stakeholders that increased support for the private sector such as education, subsidized trees for residents and support of private initiatives will help to increase tree canopy cover on private property.

2. Setting woodland cover targets

The setting of woodland target levels is already incorporated in the Urban Forest Strategy – specifically action item 1.9. The development of woodland cover targets can be implemented forward in time from the long-term to the mid-term.

Currently our woodland cover is approximately 8%. We can refine that estimate as part of our tree canopy cover mapping. Increasing woodland cover targets is difficult because it requires not only greater protection measures but also increased stewardship on the part of owners to manage the woodlands over time. This will be addressed through the public engagement process. Increasing the woodland area requires purchasing additional land which would primarily be obtained from industrial land inside the Urban Growth Boundary (UGB) and from agricultural land outside the UGB. There is limited capacity to increase woodland cover within the UGB as approximately 90% of the land base is already designated for development. In addition to the cost of purchasing the property there are also considerable long-term capital and operational costs associated with managing them. An example of where the City is reverting old fields into future woodlands is at Sovereign Woods on the east side of town.

3. Food production

This has already been recognized in the current Strategy – specifically Action item 3.4.

We support the production of food on private property. On public property, the City has recently pruned and old apple orchard to increase the production and engaged several groups and established pilot projects. We need to assess the success of these initiatives before increasing the size of the programs. The planting of fruit and nut trees in specific locations will be addressed through the review and revision of tree planting guidelines over time.