


Green Legacy Study
Project Update – March 2018

March 29, 2018 Prepared for
Trees and Forests Advisory Committee


by Brianne Curry – Project Lead (ReForest London)



Agenda

- **Project Updates:**
 - Recap of project history
 - Learnings from Wellington County Green Legacy
 - Learnings from other nurseries and models
 - London context
 - Volume of trees & implications for area requirements, locations and infrastructure needs
 - Location options
 - Mandate to include Social and Educational Programming?
- **What's Next?**


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Project History

- Summer 2016: Presentation at TFAC by Rob Johnson (Manager, Green Legacy)
- TFAC: Recommended to City Staff to investigate potential in London for a tree growing program/facility
- Recommendation went to PEC; voted in favour.


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Recap – Project history & purpose

- Winter 2017: City of London committed \$18,800 to support the project
- ReForest London: Applied for Ontario Trillium Foundation SEED Grant
 - Awarded June 2017
 - \$75,000 (Max funding)
 - Collaborative Agreement – RFL, City, UTRCA, TVDSB, LDCSB
- Project duration – Aug 2017 – Aug 2018
- As part of OTF commitment, we intend to share our findings with other communities through workshops

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Purpose:

Multiple goals of partners:

- Tree Planting Strategy / Urban Forest Management Strategy
- Million Tree Challenge
- Improved watershed health / improved forest quality

We know:

- Far more tree planting will be needed
- Cost of acquiring stock in the volume needed is rising
- Partners are identifying difficulties in sourcing desired (native) species in the volume and / or sizes needed, when desired
- ◆ We need a reliable, affordable source of trees, in the species and sizes that partners want.
- ◆ The Green Legacy model offers a unique opportunity to marry tree production and supply, with social and educational programming for community

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Wellington County Green Legacy



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Tree Nursery Locations



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Wellington County Green Legacy

- 6 greenhouses in total (2 North, 4 South)
 - Plus field production area for potted stock
- Cold storage, offices, potting sheds
- Volunteer Program
 - School Program, Co-ops, Groups, corporate, individuals
 - Summer students

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Green Legacy: Majority is Plugs / Seedlings



Variety of ~30-45 native species (depends on yr).

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Trees wintered over, and packaged for spring distribution



Fall / Winter / early Spring is Packaging time!

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Potted stock



Large compound with about potted stock (most 1 to 2 gallon pots, few larger)
~15,000 total on site at each of the two nurseries

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Large Potted / Specimen Trees



Pot – in – pot container grown trees.

- Used for special events eg. Warden's Plantings
- Schoolyard trees
- Minimal – less than 300 trees.
- Pots in ground; drip irrigation

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Green Legacy Operations

- Staff: nursery manager, 2.75 FT nursery workers, 1 community outreach worker, + seasonal staff
- Operating budget approx. \$750,000 / year
- Annually
 - Distribute 160,000 2-3 year seedlings and 15,000 potted
 - **Planting** services ~12,000 trees / yr
 - ~30 Classroom visits
 - Education and volunteer experience of approx.15,000 hours

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Learnings from other nurseries

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Warwick (Credit Valley CA, Caledon, ON)



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Credit Valley Conservation (CVC) Warwick Nursery



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CVC Warwick



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CVC Warwick

- 50,000 1-3 gallon pots shipped annually, of which 20,000 are for TRCA (for TRCA, most is produced from purchased seedling, potting in spring, ship in fall)
- Remainder of trees are “sold” to planting programs within CVCA or external buyers
- Useful benchmark for size, approach, costs, etc.
- Nursery area covers about 130,000 sq. ft with driveways (3 acres)
- Production area is around 74,000 sq. ft. (1.7 acres)

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CVCA Warwick - Operations

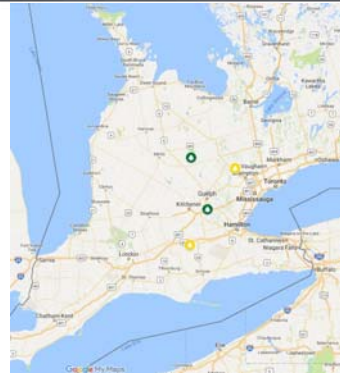
- 2 core staff, plus as needed use of Forestry staff, plus seasonal

Costs reduced:

- Ongoing operating costs reduced since use CVCA staff as needed
- Startup and Overhead costs reduced since share the building with Forestry operations
- Potting machine is key, 3500 pots/day
- No volunteer program

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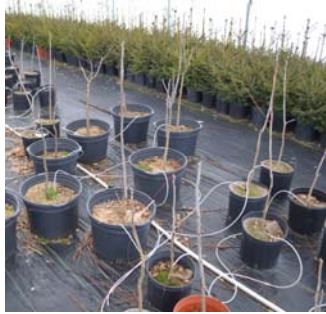
GRCA Burford



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GRCA Burford - Operations

- Grows for GRCA planting programs, plus sale to other groups & municipal programs
 - Majority Bareroot saplings or whips
- Also ~20,000 potted plants / yr
- Cost competitive or higher than retail / wholesale



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Take – aways from other nurseries

- No cost savings from purchasing from retail / wholesale sector.
- Strategic reasons prioritizing **control** over:
 - Species
 - Size
 - Seed provenance
 - Seasonality

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Implications for London

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Annual volume requested

	2020	2028
C-Seedling plug	1,875	1,875
C-Potted Med	2,981	5,381
C-Potted Large	630	630
C-Caliper (35-70 mm)	30	100
D-Seedling plug	5,625	5,625
D-Potted Med	14,730	26,330
D-Potted Large	853	2,653
D-Caliper (35-70mm)	6,381	6,381
Fruit trees - Potted Large	2,627	7,527
Shrubs - Potted Med	3,436	3,436
Total	39,168	59,938

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Inventory required

Deciduous and coniferous	Age at delivery	Inventory
Plug	2	143,851
Potted medium (tree and shrub)	3	55,060
Potted large	4	18,156
Caliper	7	22,359
Fruit trees	5	7,903
Total		247,329

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Feasibility Study

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- ### Footprint and infrastructure requirements - London
- Ultimately requiring ~10-12 acres for total inventory by 2028
 - ~2 acres for buildings:
 - Programming / offices
 - Utility sheds / potting sheds / storage
 - Storage of soil and bulk materials
 - Parking
 - Shipping area
 - Plus greenhouses as required (~2)
- Implications for location in London: large parcel of land.
- Multiple sites?
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- ### Locations Reviewed
- Greenhouses at TVDSB and LCDSB schools
 - City of London owned
 - Civic Gardens
 - Large areas on outskirts London
 - Adelaide Depot
 - Other Depots (Exeter, etc)
 - Lands zoned industrial but not slated for use for 10-20 years
 - Lands slated for new section of Commissioners but not slated for 10+ years
 - Cavendish
 - UTRCA
 - RFL land
 - Greenhouse Academy
 - Existing nursery for sale
 - Private nurseries
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Single site or multiple sites

- New nursery could be located at several sites
 - Optimize use of existing greenhouses for seed trays and programming
 - School greenhouses
 - Civic Gardens?
 - Others?
 - Some large potential locations are not as ideally located (distance and transit accessibility)
 - May be able to get a low cost lease from the city for a large volume site
 - May be other parcels of land available for production area

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Key assumptions for the feasibility study

- New entity is set-up:
 - Professional nursery staff and programming specialists
 - Seed zone specific stock, certified seed collectors
 - Non-profit, with multiple partners on its Board, with partners receiving trees at no cost in return for their contribution
 - Start-up by ~2020 (first trees delivered in 2022) and ramp up to full volume to be determined; plan for 15+ year operation (as long as meet mandate)
 - High quality trees grown to partners' volumes and specs
 - 100% container
 - Meet all provincial standards and regulations

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Eg. Saunders Secondary School Greenhouse

- ~6 TVDSB greenhouses
- Location for seed trays until ready for transfer to nursery operations
- Opportunities for educational programming and partnerships



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Site / Location review

- Brianne + Consultant (Christine Burow) completed a preliminary assessment of potential sites in City of London
 - Some City – owned land
 - Some private lands
- Location assessment criteria developed
 - Suitable / Not suitable
 - Cost

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Other models that have arisen

- Public – private partnerships with local businesses
- Contract growing with private nurseries
 - CVC Warwick, GRCA Burford
 - Commercial tree nurseries
 - Greenhouse Academy
 - Others

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Sheridan Glen Williams Farm – pot-in-pot



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Mandate of a new community nursery

	Value from new nursery	Alternatives
Trees and shrubs – type & volume	Security of supply for desired species, volume, provenance	Existing commercial nurseries; Contract growing
Trees and shrubs – cost	No benefit	Existing commercial nurseries
Educational programming	High value but hard to monetize; also can use to support Urban Forest Strategy & London Plan's communications goals	Existing programs
Social programming	As above	Existing programs

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What's next?

- Consultant preparing draft of business case and financial modelling; location assessment options
- Workshops to observing partners in other communities (Spring 2018)
- Summer 2018 Final report prepared
 - Share findings

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Questions?

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