

Implementing Halifax's Urban Forest Master Plan: Joys and Triumphs, Trials and Tribulations



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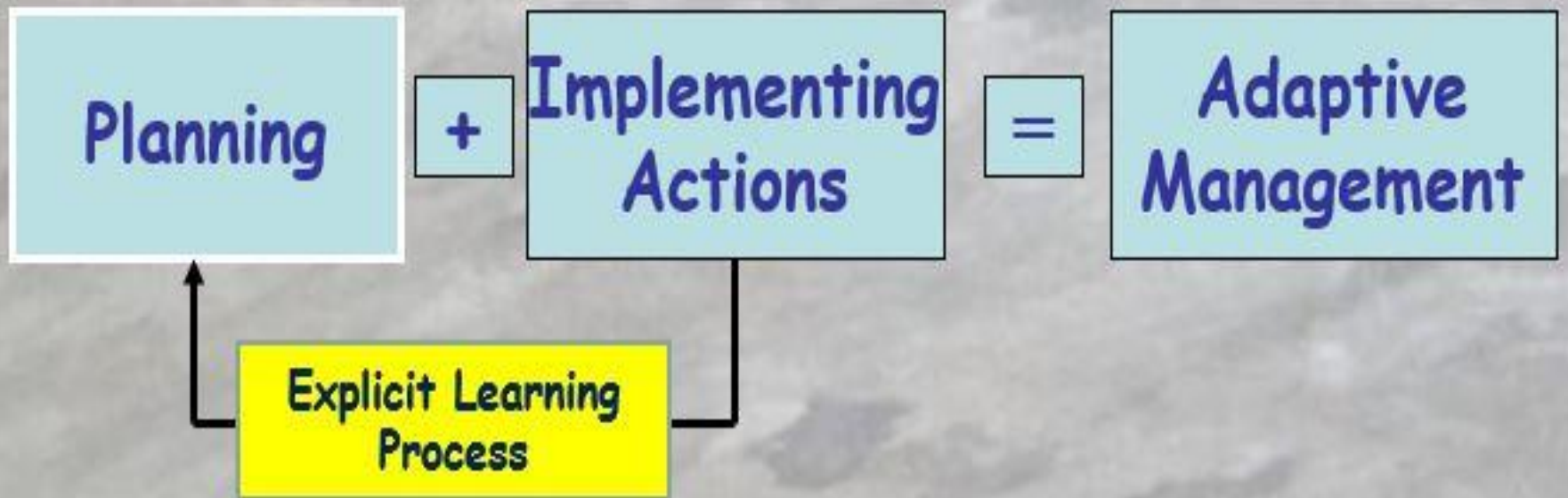
Foundational Concepts for the Urban Forest Program in Halifax

- **Management**
- **Adaptive management**
- **Values**
- **Citizen engagement**
- **Professional collaboration**
- **Words and numbers**
- **Silviculture and arboriculture**
- **Humility**

Foundational Concepts: Management



Foundational Concepts: Adaptive Management



Foundational Concepts: Values

- Value = what people say is important to them
- “I value trees in the city because . . .”
- Methods:
 - Interception surveys on the street
 - Field tours with focus groups
 - Online surveys
 - Photo elicitation
- Locations: Calgary, Winnipeg, Fredericton, Halifax

Top seven value categories from interception surveys

| Halifax | Fredericton | Winnipeg |
|-----------------|-----------------|-----------------|
| Aesthetics | Aesthetics | Aesthetics |
| Air | Air | Shade |
| Oxygen | Shade | Naturalness |
| Sense of Place | Oxygen | Environ Quality |
| Environ Quality | Biodiversity | Air |
| Naturalness | Environ Quality | Oxygen |
| Shade | Wellbeing | Sense of Place |

Why/how do we value city trees?

- Beautify the city
- Conserve fuel
- Prolong life of streets
- Reduce energy costs
- Enhance safety
- Provide shade
- Business opportunities
- Draw tourists
- Diverse foods
- Foster health
- Recreation opportunities
- Carbon capture & storage
- Cool the city
- Slow down stormwater
- Clean the air
- Improve water quality
- Conserve biodiversity
- Employment
- Increase property values
- Learning opportunities
- Sense of place
- Sense of well-being

Our publication for lay people . . .

In Support of Trees in the City

A Message for Municipal Councillors, Urban Developers and NGOs

Prepared by
Canadian Urban Forest Research Group
March 2013

Urban forest

For our purposes here, we define the urban forest to include all the trees in the city. While a tree is a large woody-stemmed plant (or one that can grow large), a forest is a tree-dominated ecosystem. That means that a forest includes all the other kinds of organisms (that is, plants, animals, microbes, etc.) that are associated with trees, plus the soil, air and water upon which the living community depends. We use the terms "urban forest" and "trees in the city" interchangeably.

Why are trees in the city important?

Why have we prepared this document?

We believe that trees in the city do not get the attention they deserve. Considering the abundant values associated with the urban forest, too little effort goes into learning about them, expanding them, tending them, appreciating them, and generally being good stewards. Our aims with this short document are threefold - to remind policy people why urban forests are so important to city dwellers, to encourage further learning about urban-forest values, and to promote stronger attention to urban forests through increased stewardship activities.



https://sylveritas.files.wordpress.com/2014/03/cufrg_2013_supporttreesinthecity.pdf

Foundational Concepts: Citizen Engagement

- Whose values matter?



Foundational Concepts: Professional Collaboration



Foundational Concepts: Words and Numbers

- The world is way bigger, way more than mere quantities!
- “You can’t manage what you can’t measure!”
- OK, but words form the nominal scale of measurement – gotcha!

Foundational Concepts: Silviculture and Arboriculture

- Arboriculture = practice and study of the care of **trees** ... (ISA)
- Silviculture = study and practice of the maintenance and growth of **forests** (ISA)
- Unit of care: ***tree vs. stand vs. forest***

Foundational Concepts:

Humility



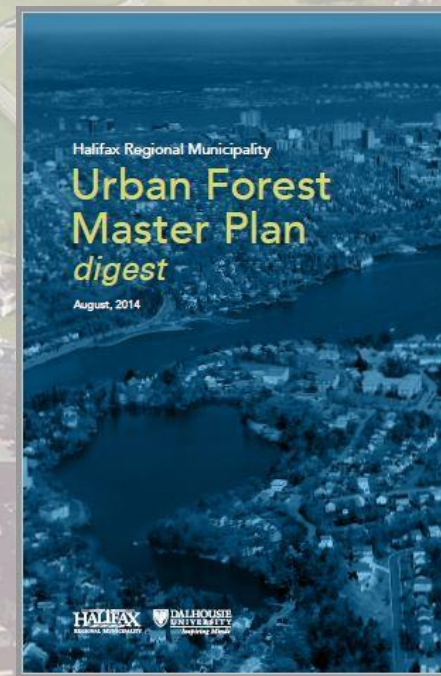
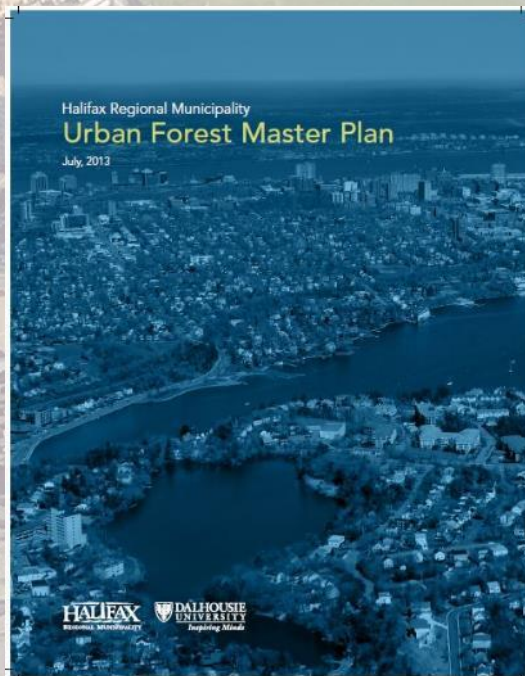
Mutual Learning

The HRM Urban Forest Master Plan

- Preceded by UFORE and Stratum analyses in 2007
- Agreement to engage – HRM and Dalhousie Univ. – in 2010 (annual contractual arrangement to hire students)
- Spring 2010 to Sep 2012 – intense period of analysis, literature review, writing, and consultation
- Team:
 - HRM:
 - John Charles, planner
 - John Simmons, arborist and urban forester
 - Dalhousie:
 - Peter Duinker, professor
 - Rotating group of a dozen students and former students

The HRM Urban Forest Master Plan

- Draft approved by HRM Council September 2012
- Revised version published July 2013 (440 pp.)
- Digest version published August 2014 (42 pp.)
 - Go to: <https://www.halifax.ca/property/UFMP/>



The HRM Urban Forest Master Plan

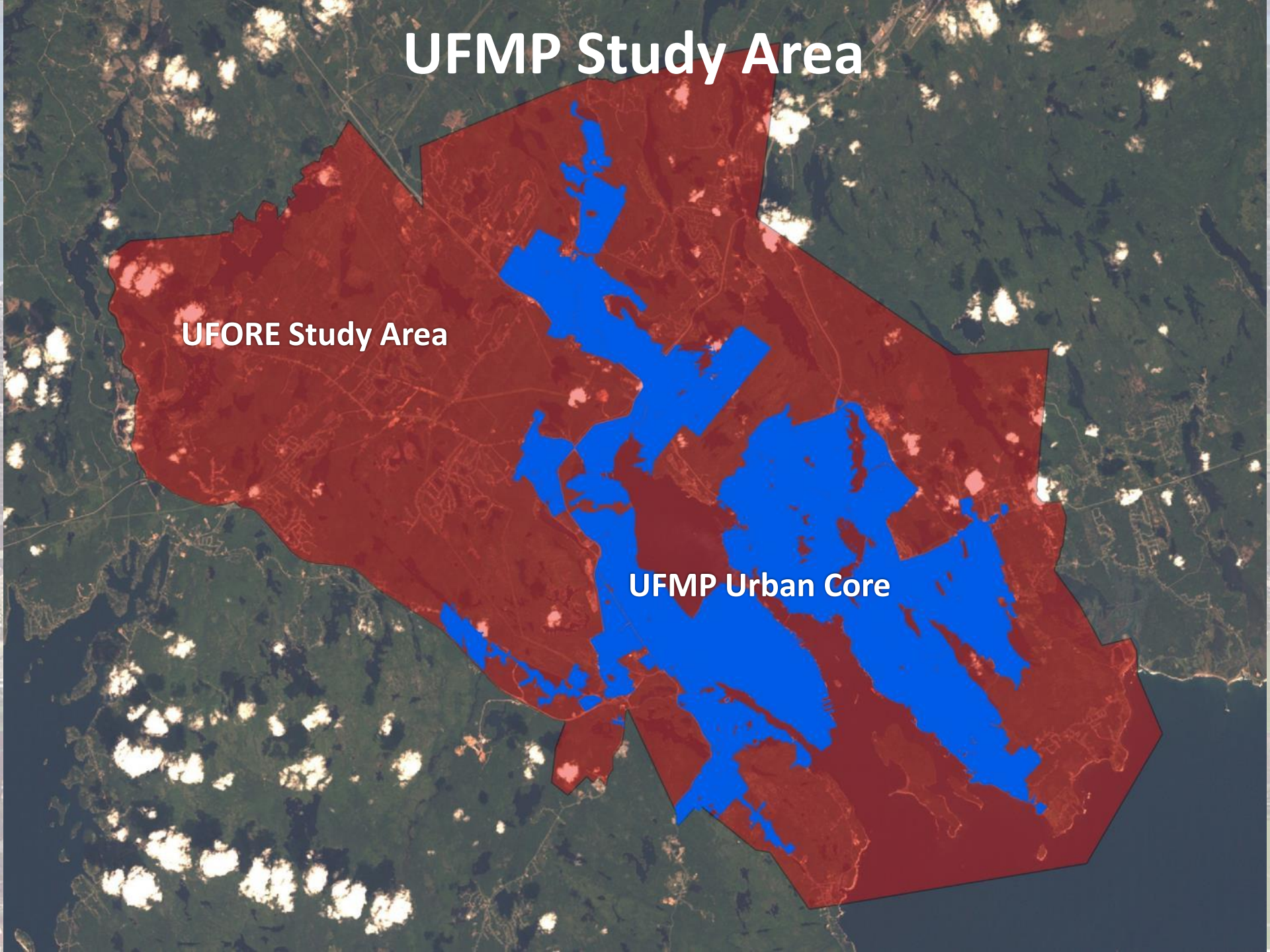
- Innovation in the UFMP – neighbourhood analysis



UFMP Study Area

UFORE Study Area

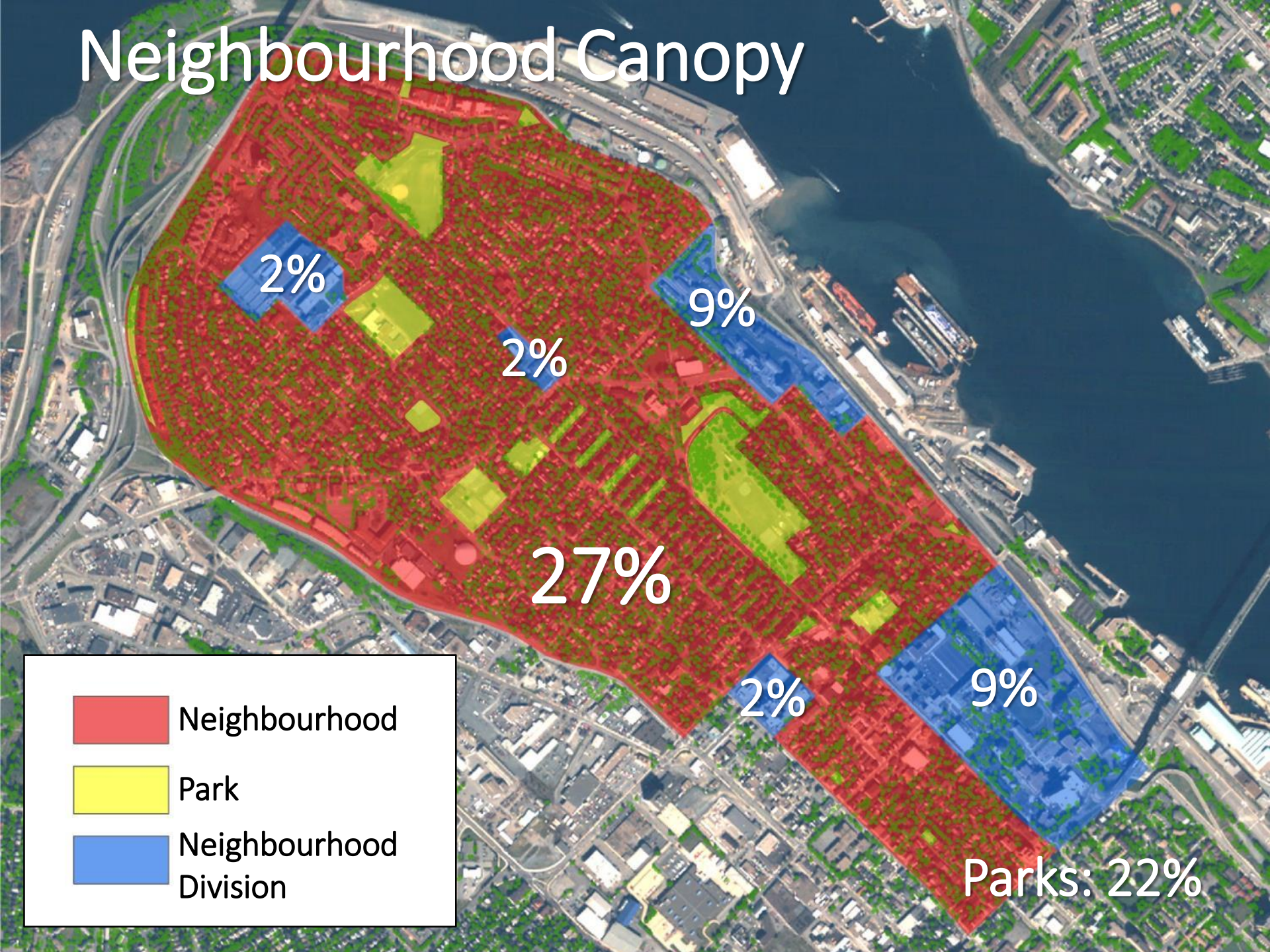
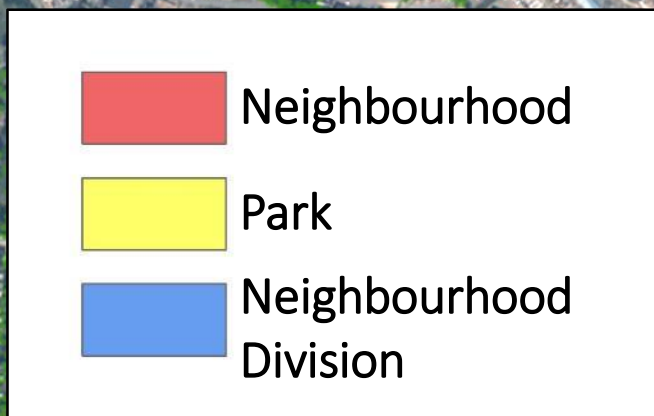
UFMP Urban Core



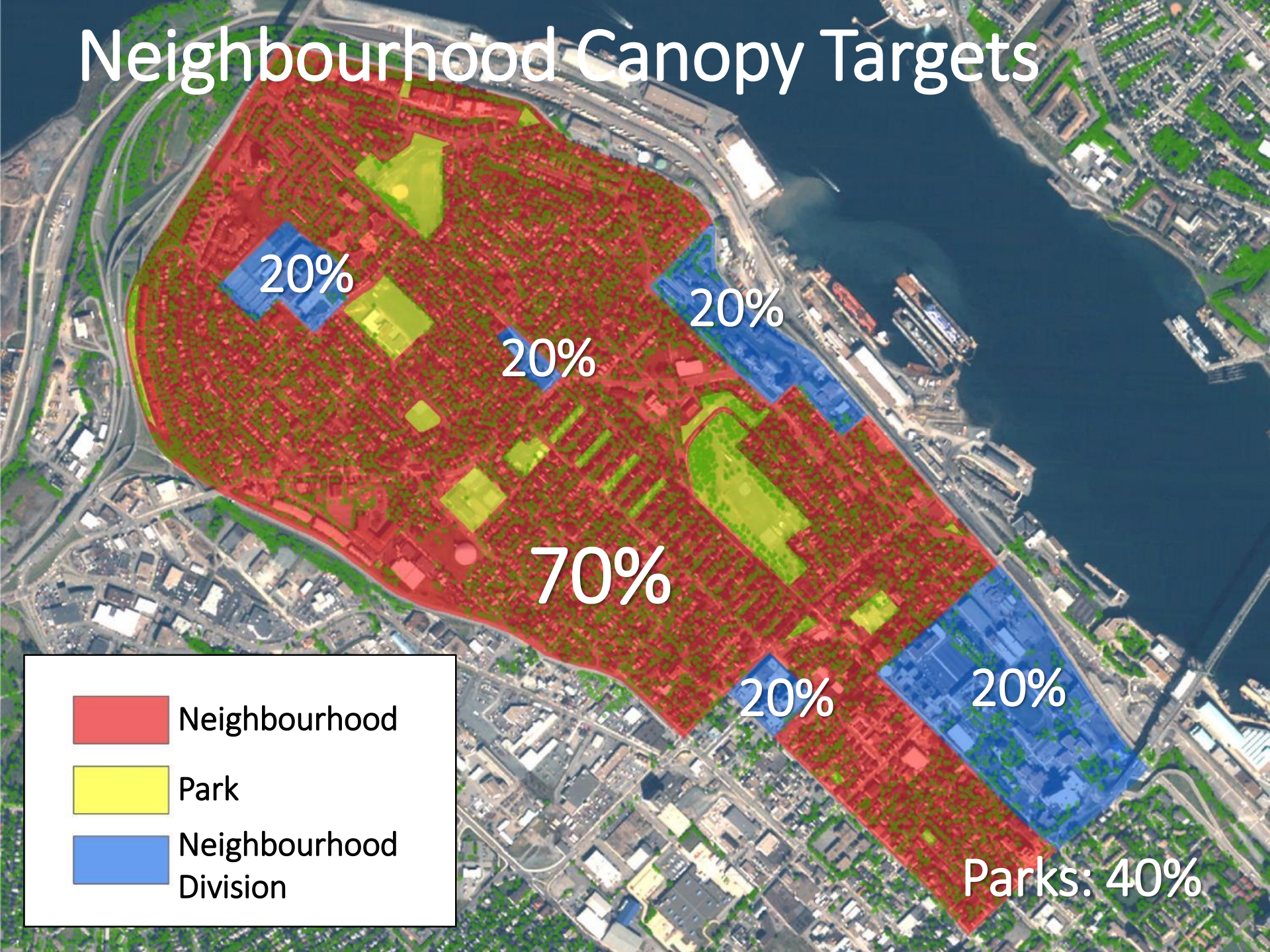
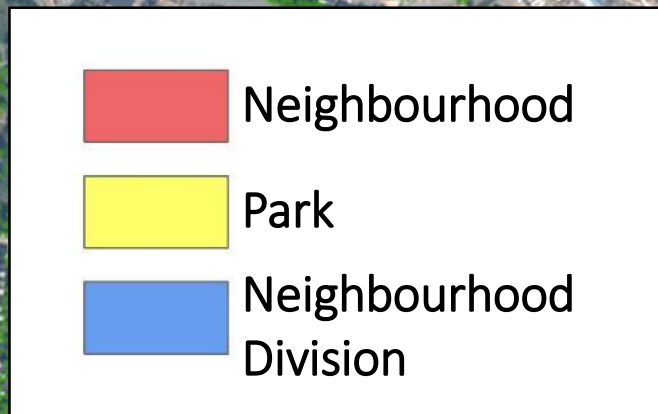
111 Neighbourhoods



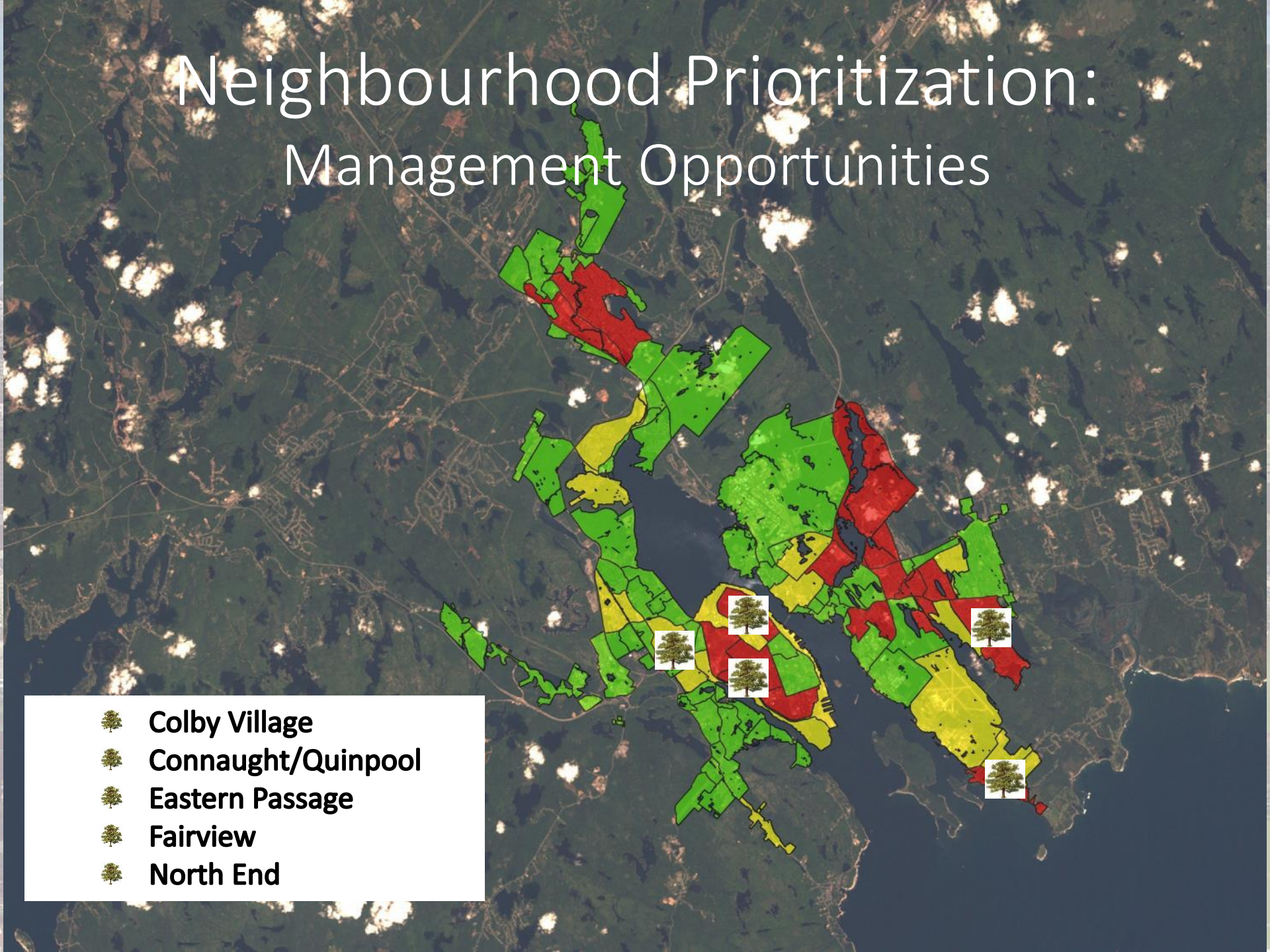
Neighbourhood Canopy



Neighbourhood Canopy Targets



Neighbourhood Prioritization: Management Opportunities

- 
- The map shows a coastal region with various land parcels. A legend in the bottom-left corner identifies five categories: Colby Village (green), Connaught/Quinpool (yellow), Eastern Passage (red), Fairview (green), and North End (yellow). Several tree icons are placed on the map, primarily in the central and eastern parts, indicating specific management opportunities. The map also shows a network of roads and a large body of water to the east.
- Colby Village
 - Connaught/Quinpool
 - Eastern Passage
 - Fairview
 - North End

Action priorities

- **Physical**
 - Plant trees (streets and parks)
 - Prune trees
 - Priority neighbourhoods
- **Regulatory**
 - Tree bylaw?
 - Tree specs and standards: for developers
 - Improve contracting relationships
- **Public Engagement**
 - Education
 - Consultation
 - Tree-planting
- **And . . .**

Research, monitoring, and support: a role for Dalhousie

- Annual contract of about \$35K to hire two graduate-level interns for May-Aug
- 2013-2016 – monitor various activities and results
 - Planting
 - 2016 – mechanical damage survey (grass maintenance)
 - Various student project reports
 - Lit research and writing
 - Assist warranty inspections



Accomplishments, 2013-2016

- **Street-Tree Planting**

- Contract – about 5K trees
- Hfx Urban Forestry – about 1K trees
- Developers and roadway re-construction – no idea!
- Tree list diverse and biased toward native and Carolinian

- **Street-Tree Pruning**

- Long-term desire: cyclical, ten years or less
- Got two seasons done – winters 2014 and 2015
- Many discussions but no deals with NS Power

Accomplishments, 2013-2016

- **Regulation**

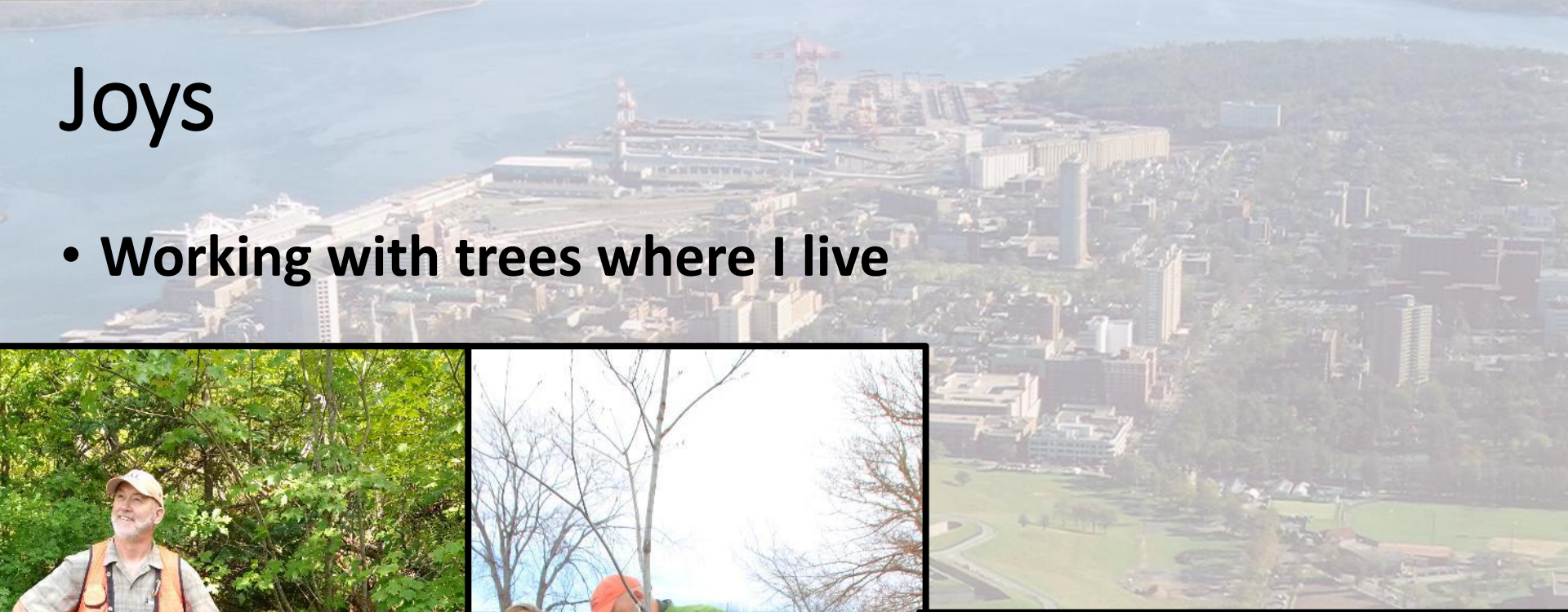
- Student-based studies done
- 2016 – tree specs and standards document being developed
- Likely not proceeding with a private tree-cutting bylaw

- **Citizen engagement**

- Walkabouts
- Radio and TV spots/interviews; lots of PSAs
- Newspaper items (e.g., PD op.ed. on tree damage)
- Door hangers during planting
- Special workshops (e.g. urban orchards)
- Social media
- Special citizen-based tree plantings

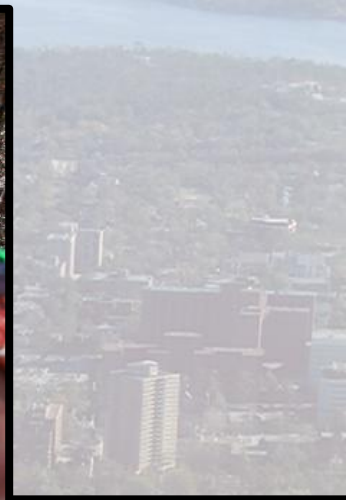
Joys

- Working with trees where I live



Joys

- Working with kindred spirits



Joys

- **Watching HRM grapple with implementation**
 - **Getting money**
 - **Keeping personnel on the program**
 - **The plan has impact!!**



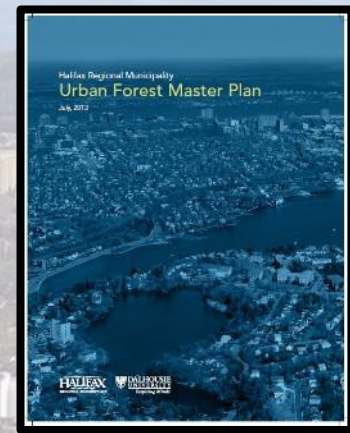
Joys

- Plan contains explicit commitment by HRM to spend money at Dal on research and monitoring



Joys

- Seeing a plan get implemented
- My planning experience as author:
 - Raith Woodlot, near Thunder Bay (1990; not implemented)
 - Millar Western DFMP, Whitecourt (2000; unsure of implementation)
 - Point Pleasant Park Plan (2008; partial implementation)
 - Victoria Park Plan, Charlottetown (2013; not implemented)
 - Upton Farm Plan, Charlottetown (2014; not implemented)
 - Fort Needham Park Plan, Halifax (2015; not implemented)
 - HRM UFMP (2013; partial implementation)
- If there is no implementation of a plan, there is no management!!
- Flipside – sorrow when not implemented



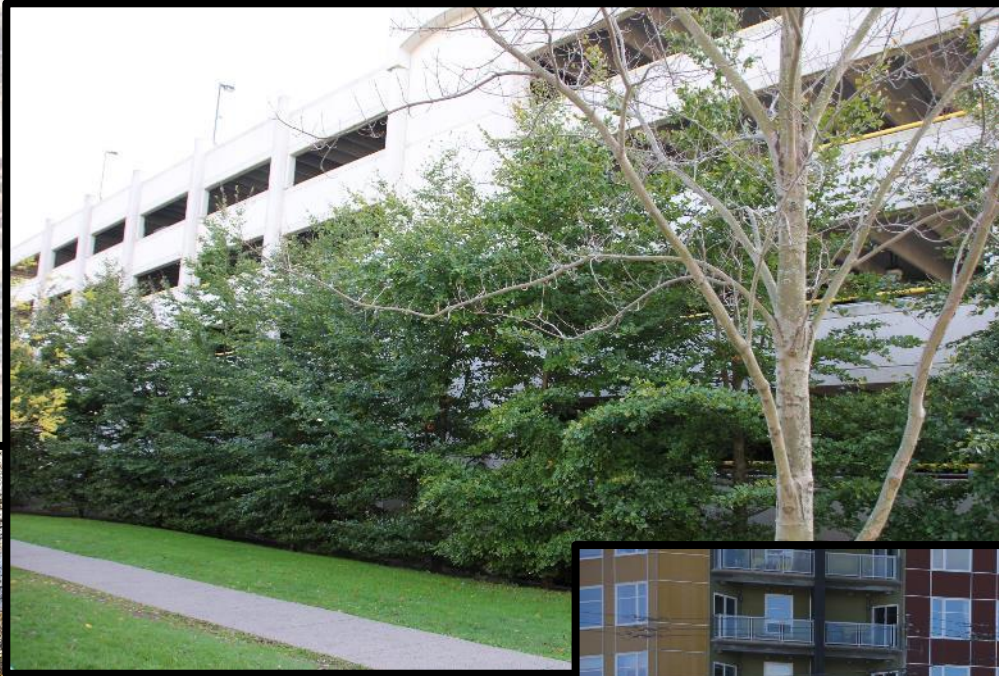
Joys

- Integration of teaching, research, professional practice



Joys

- Watching the Halifax tree population improve



Tribulations . . .

- prospect of discontinuity of personnel



Tribulations . . .

- tree abuse - bad planting, bad maintenance, bad pruning







DANGER
WORKING
ABOVE

DANGER
NO PEDESTRIAN
TRAFFIC

2015/09/12 09:39

Tribulations . . .

- **contract issues, esp. for planting**
 - Low bid always wins
 - Substitutions
 - Quality control
 - Warranty
 - Transportation problems
 - Planting out of season
 - Information management



Tribulations . . .

- Subdivision development that continues to see trees as minor afterthoughts



Tribulations . . .

- - inability to reach more of the citizenry



Tribulations . . .

- precariousness of the budget (annual appropriations; always subject to clawback)
- watching administration proliferate (e.g. steps in getting a contract set up)
- witnessing administrative structural instability (e.g. frequent re-orgs)

Tribulations . . .

- **Struggles with data and information management**
 - GIS registration of trees
 - Data on tree size and condition
 - Basic information on street-tree plantings
 - Contract
 - HRM – Urban Forestry
 - HRM – infrastructure renewal
 - Subdivisions and new developments

Tribulations . . .

| Addn Halifax Planting | | |
|-----------------------|-------------------|-------|
| Civic | Street | Trees |
| Clayton P. | Gorsebrook Park | 6 |
| 120 | Southgate Dr. | 3 |
| 173 | Southgate Dr. | 2 |
| | Fairview Cemetery | 5 |
| Firestation | Lady Hammond Rd | 1 |
| | Mansion | 1 |

~~232 Hollyhockway~~ → 1

Mount Royal Park →
(off Abercrombie)

3 new trees between
playground benches
→ Replaced 2 dead Redwoods
and 1 dead Oak above
the playground.

Red
Sicamore
walnut, Ginko
- 2 Dawn Redwood (2 of 6)

Ginko, Red maple, walnut
Walnut, Sicamore
- Whatever is left (Do last
Redwood, Ash, Redwood, L plain, Fish Locust, Gink
Locust
Redwood

Sicamore

6. Lessons and encouragements

- To urban forest managers
 - Hone your people and political skills
 - Make it easy for people to adopt YOUR agenda
 - Support life-long learning
 - Embrace scholarly community
 - Have your OWN hands on the tiller of UF planning



6. Lessons and encouragements



- To professors
 - Get out of the ivory tower
 - Facilitate and collaborate
 - OK to bring theory to practice, but be sure to know practice
 - Help the poor souls who labour in the city trenches

6. Lessons and encouragements

- To students
 - Make your profs help you get strong practical experiences and take you to conferences 😊
 - Bounce constantly between theory and practice
 - Get good grades



6. Lessons and encouragements

- To councillors
 - Become the tree advocates at Council
 - Support your urban-forest team
 - Spend your discretionary funds on trees, not playground equipment



6. Lessons and encouragements

- To everybody
 - Look up while walking the streets



6. Lessons and encouragements

- To everybody
 - Ask yourself this: wherever a tree COULD grow, but isn't, why, and what would it take to get a tree there?



6. Lessons and encouragements

- To everybody
 - Challenge conventional wisdoms/follies:
 - Why are they planted far apart instead of close together?



6. Lessons and encouragements

- To everybody
 - Challenge conventional wisdoms/follies:
 - Why are trees planted in straight lines, and not randomly or at least in curves?



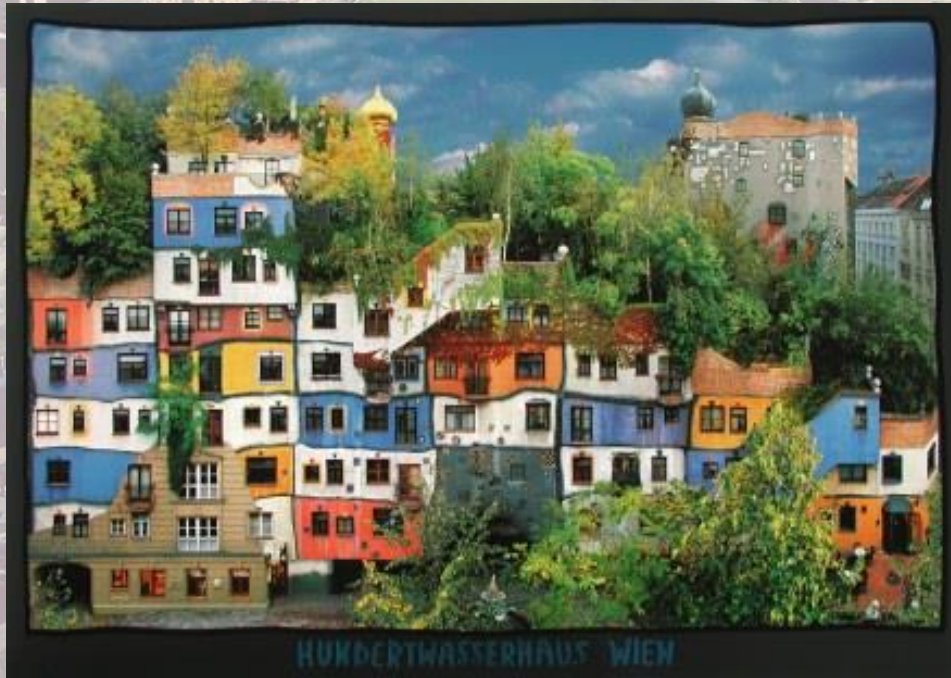
6. Lessons and encouragements

- To everybody
 - Challenge conventional wisdoms/follies:
 - Why are trees pollarded?



6. Lessons and encouragements

- To everybody
 - Challenge conventional wisdoms/follies:
 - Why don't we plant more trees on buildings?



6. Lessons and encouragements

- To everybody
 - Challenge conventional wisdoms/follies:
 - Why aren't commercial developers required to shade their parking lots with trees?





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