

GREEN INFRASTRUCTURE PLANNING

Inventory + Assessment



Planning + Design



Management + Field Operations



- 1 | **Establishment + Emergence** *trends and tools towards green infrastructure planning*
- 2 | **Green Infrastructure Planning** *uniting disciplines, leveraging resources*
- 3 | **Experience to Date** *community planning + management strategies*
- 4 | **The Crystal Ball** *increased need for whole-systems thinking*

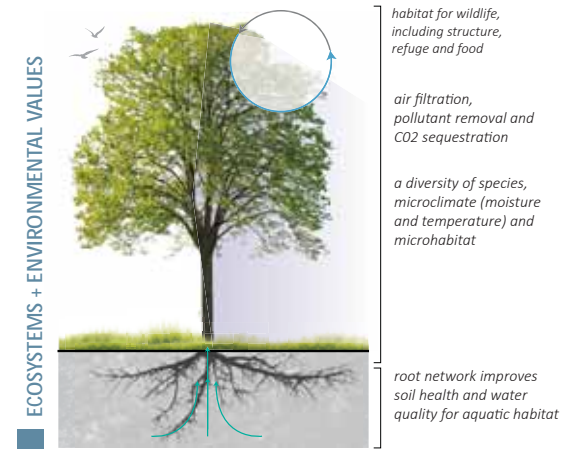
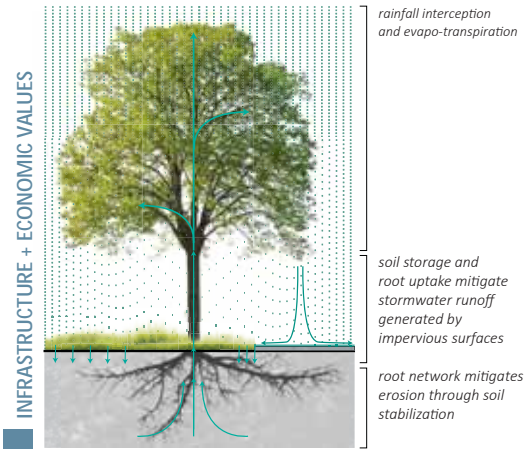
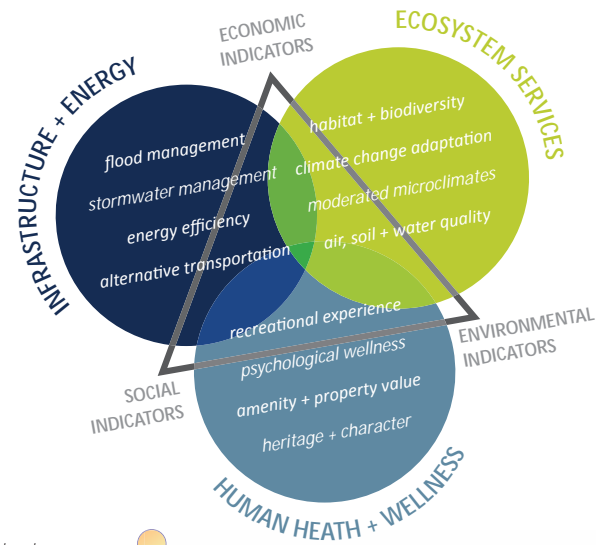
Established Tools + Emerging Trends:

- > Departmental/Professional expertise; and,
- > Cross-disciplinary awareness... and new priorities/measures.

Established Trends + Emerging Tools

- > “Ecological” challenges and constrained resources; and
- > Citizen science (participation), iSampling (technology) and design-based planning (collaboration).

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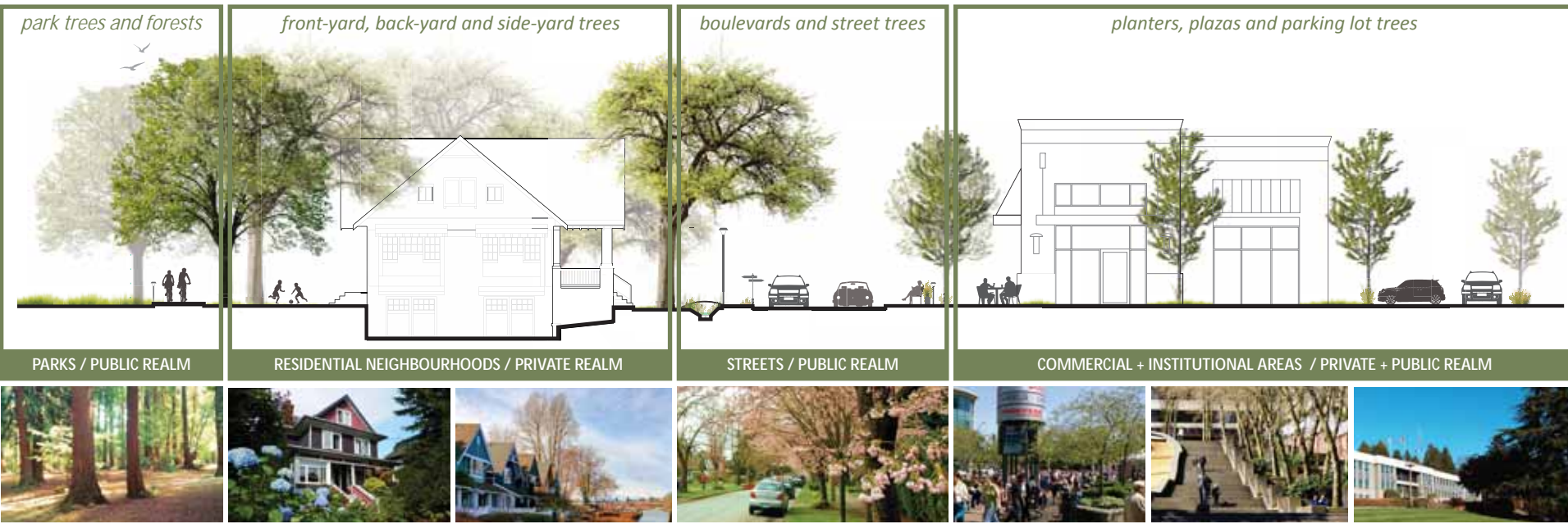


QUALITY OF LIFE + SOCIAL VALUES



Urban forests are defined as “ecosystems composed of trees and other vegetation that provide cities and municipalities with environmental, economic and social benefits. They include street and yard trees, vegetation within parks and along public rights of way, water systems, fish and wildlife.” (www.americanforests.org)

Green Infrastructure is defined as “a strategically planned and managed network of natural lands, working landscapes, and other open spaces that conserves ecosystem values and functions and provides associated benefits to human populations.” (Benedict & McMahon 2006)



Departmental Mandates

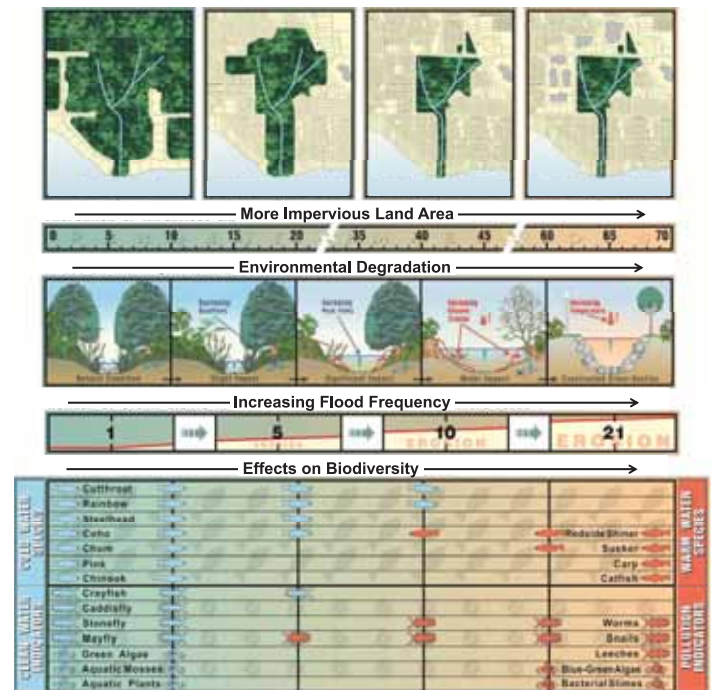
- > Engineering: water resource management (storm/flood), health + safety;
- > Parks: recreation and conservation; and,
- > Planning: development permitting

Word on the Street

- > Deep capacity... and limited resources
- > Duplicated efforts, lacking clarity (operational guidelines)

Departmental Mandates: Engineering

- > Engineering: Surrey Biodiversity Strategy – secure quality and quantity of habitat for future. What percentage of vegetation cover is being met in the future?
- > Engineering: Integrated Stormwater Management Plan – mimic natural processes, prescribe size of riparian buffers, maintain forest habitat, development bmps. Looks at pervious/impervious cover but the monitoring measures are water volume, balance and quality. Provincial guidelines recommend 60% vegetative cover.

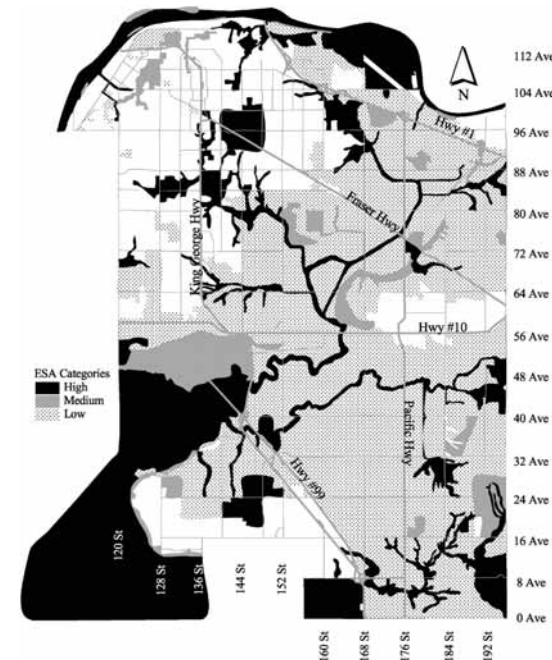


Departmental Mandates: Parks + Planning

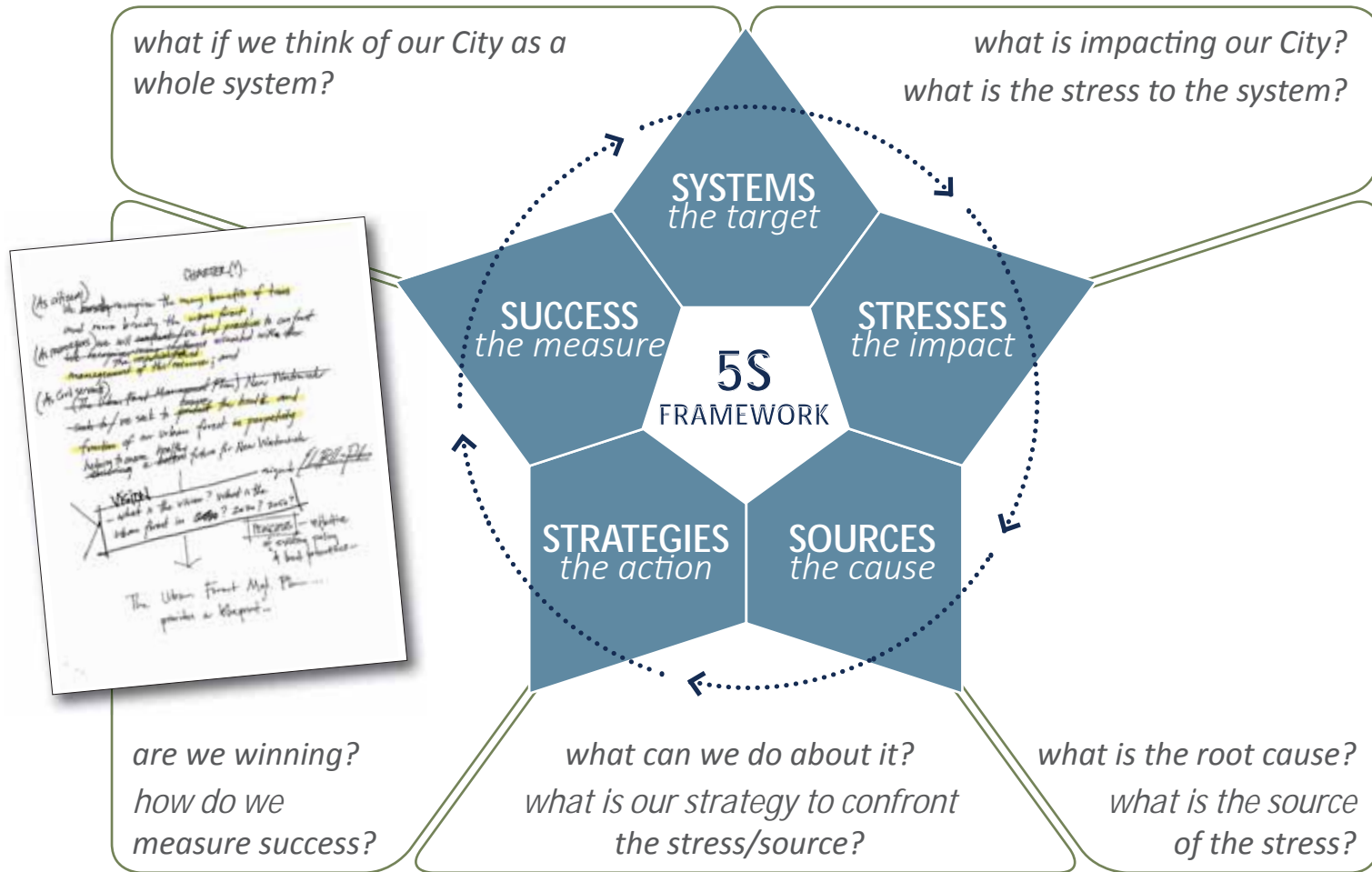
- > Parks: Surrey Street Tree Plan – direction on the management of city owned trees into the future. Provides canopy cover goals, recommendations for street tree design, tree protection and bmps
- > Parks: Surrey Natural Areas Plan – management of city owned natural areas.
- > Planning: Sustainability Charter – long term vision for sustainability in Surrey – measures trees planted vs removed (no target), vegetative cover targeting be 50%
- > Planning: Tree Bylaw – regulates tree removal and replacement work on private land

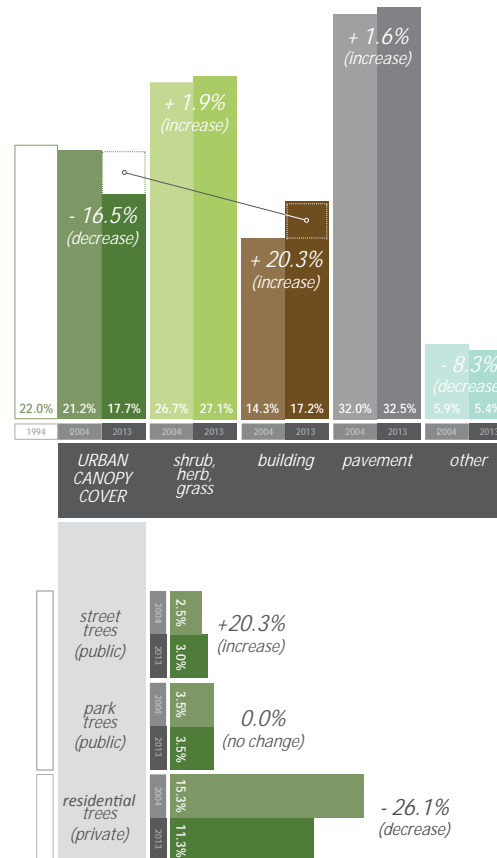
SCHEDULE "A"
Environmentally Sensitive Areas

Note: This version of the map is a general guide only. The official detailed version of this map shall be kept in the Building Division of the Planning and Development Department of the City and takes precedence over this general guide for all purposes. For a detailed plan of specific areas, please contact the Trees and Landscape Manager.



- A1 -



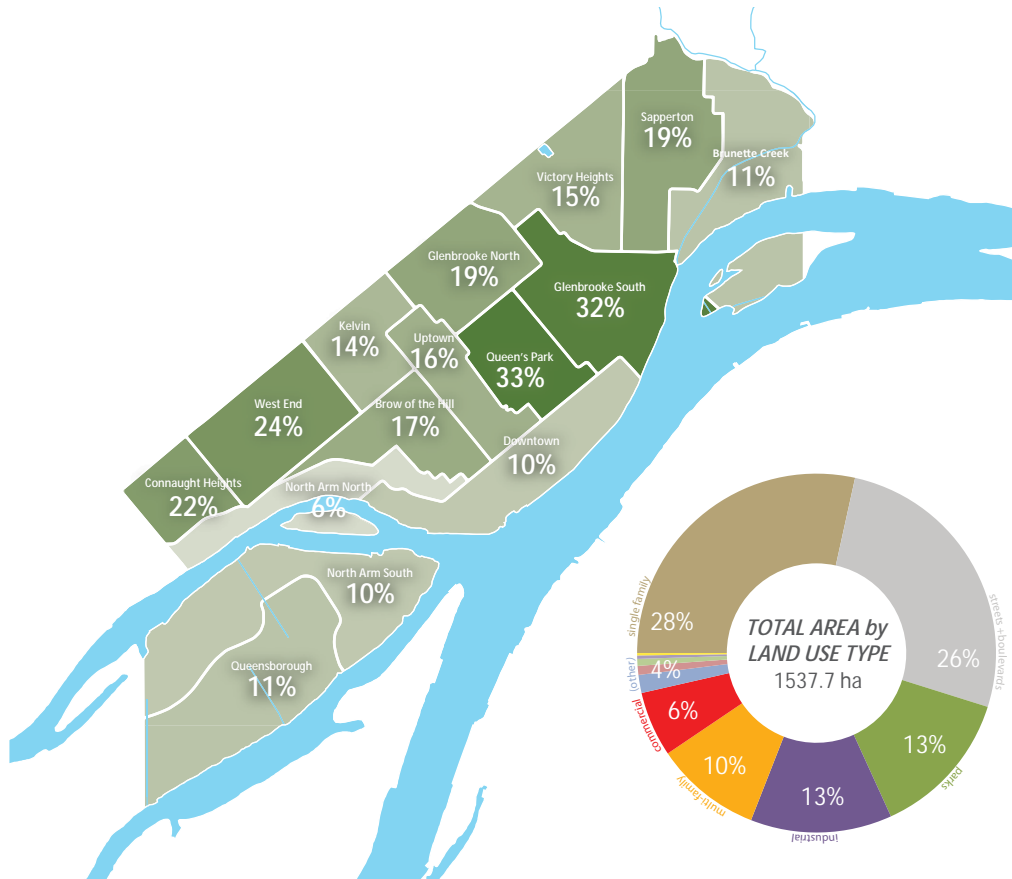


Taking a city-wide perspective, obvious trends emerge:

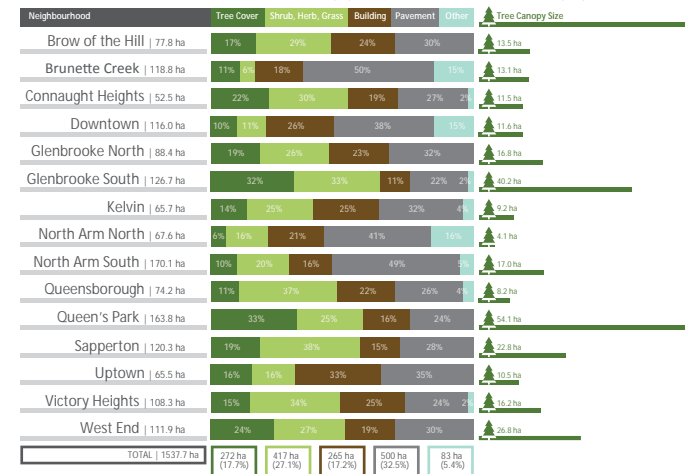
The decrease of urban forest canopy since 2004 correlates strongly with an increase in building coverage (with only slight increases in paved surfaces and lawn/shrub coverage), typical of urbanized- and densifying-municipalities; and,

Canopy cover change since 2004 shows a slight increase in tree planting along streets with the vast majority of change occurring in residential areas.

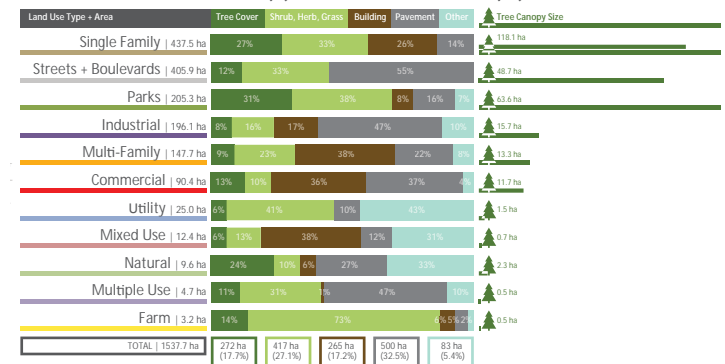
GREEN INFRASTRUCTURE PLANNING



NEIGHBOURHOOD STATISTICS - RELATIVE (%) COVERAGE and ABSOLUTE (ha) COVERAGE



LAND USE STATISTICS - RELATIVE (%) COVERAGE and ABSOLUTE (ha) COVERAGE



A New Way to Manage Green Infrastructure

CURRENT POLICIES

Municipalities employ comprehensive and often redundant policy documents to articulate and implement the goals and objectives of the community...

POLICY OPPORTUNITIES

Specific management policies - guided by an overarching Green Infrastructure Strategy - can ensure key measures of green infrastructure health and function are considered throughout all stages of the regulatory process.



A New Way to Manage Green Infrastructure

> Inventory + Analysis >>

shared priorities, targets and measures

> Planning + Design >>

cross-departmental, inter-disciplinary, collaborative

> Management + Field Operations >>

clearly-defined, coordinated



GREEN INFRASTRUCTURE PLANNING

Inventory + Assessment



Planning + Design



Management + Field Operations



*Integrating environmental features into project objectives...
helping create great places that people will value for years to come.*

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SHAMELESS PLUG, QUESTIONS + DISCUSSION