Neighbourhood Screening Process and SNAP Model

Maximizing Co-Benefits of Infrastructure Renewal and Climate Action

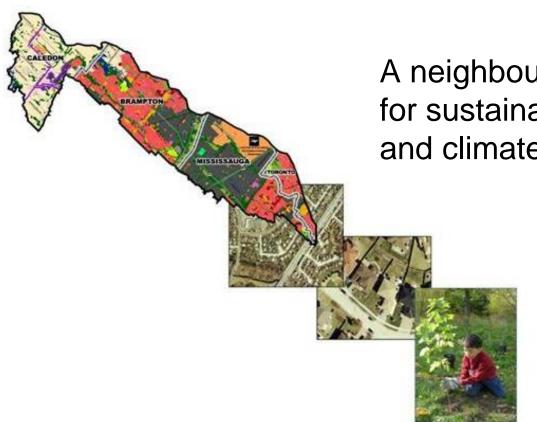
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Presentation Outline

- SNAP Program Context
- Neighbourhood Screening Process
- Preliminary Results and Next Steps
- Discussion and Key Takeaways

Sustainable Neighbourhood Action Plan (SNAP) Program



A neighbourhood-based solution for sustainable urban renewal and climate action.

- ✓ Brings efficiencies
- Draws strong community support
- ✓ Builds innovative partnerships for implementation

Sustainability Framework

- Goals, objectives, working targets
- Links with existing municipal and partner plans, watershed plans etc.



Typical SNAP Action Areas









Where is SNAP a good fit?

An identified need:

- Multiple urban renewal priorities
- Multiple landowners, groups
- Competing interests, limited resources
- Implementation challenges

Factors for success:

- At least 1-2 projects ready to advance
- Core willing and interested partners
- Confirmed resources (scoping, workplan)



Neighbourhood Screening

Objectives:

- Develop municipality-wide screening process to identify the alignment of multiple urban renewal and climate action priorities
- Identify future SNAPs and other integrated projects

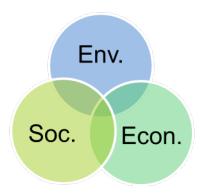
Rationale:

- Complex issues: multiple players, interdependencies
- Potential to leverage planned projects for greater impact, and maximize co-benefits
- Need to coordinate early in planning process to realize full potential

Scope

Multi-objective priorities in climate action, urban retrofit:

- Integratable with green infrastructure solutions infrastructure, built form, environmental priorities
- Complementary socio-economic, vulnerable community priorities
- Projects/Opportunities and Issues/Conditions
- 5-10 year time horizon
- Mapping of top 20-30% of priorities



Methodology

Integrated Mapping

- Plans: asset management, master plans, strategic priorities, capital project plans
- Issues: vulnerabilities, risks, other interests
- Development of a Mapping Framework

Screening

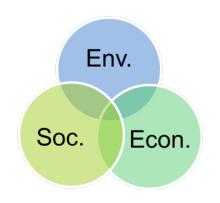
Apply decision criteria: integration with green infrastructure, "multiple hits", synergies with complementary projects, key drivers
Review equal weight "hot spots", stakeholder weighted "hot spots"

Results

- Strategic identification of opportunities for integrated projects addressing multiple infrastructure systems and other needs
- Conceptual delineation of neighbourhood and/or project areas

Mapping Framework

Metadata grouped by a set of comprehensive themes to guide and manage information



Service Area	Data Layer (EXAMPLES FROM VAUGHAN PILOT)
Buildings	 Total Energy Residential (GJ) - "High energy consumption" Annual Residential Water Consumption 2017
Infrastructure and Mobility	 Municipal SW Infrastructure – planned new or retrofits York Region Road Projects (10 years) Provincial Infrastructure Projects
Flood Safety and Erosion Risk Reduction	 Flood calls - past 10 years – "very high vulnerability (13-18)" Flood Vulnerable Areas – Cluster Management Zones – all Riverine Erosion Problem Areas
Natural Environment and Watershed Systems Health	 Targeted TNHS refined for each watershed IRP scores – "high priority (7-10)" Heat Stress – ground surface temperatures >30C Water Balance – priority areas for retrofit LID-SWM controls
Parks & Recreation	Parks/playground – retrofit or replacement*
Health & Wellbeing	 Access to Natural Features* Opportunities for Environmental Learning – seniors
Economic Vitality	Low-Income rates by CT 2012United Way Signs of Concentrated Disadvantage

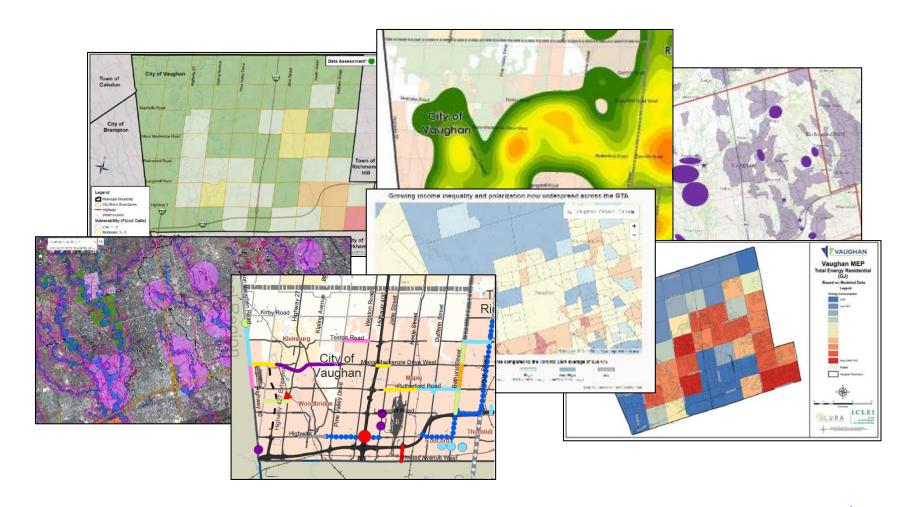
TRCA Watershed Management Priorities

Pulled forward into the Mapping Framework

Service Objectives / Priorities	Supporting Data
Watershed Systems Health	 Targeted TNHS, refined for each watershed Water Balance – priority areas for "LID" SWM retrofits
Flood Safety	 Flood Vulnerable Area Clusters Flood Vulnerable Roads Flood Remediation Priority Projects* Floodplain and SPAs (emergency preparedness)
Erosion Risk Reduction	Riverine erosion problem areasRemedial Erosion priority projects
Habitat Restoration/Management	 Integrated Restoration Priorities (IRP) Catchments supporting sensitive target fish species Multi-year community planting areas Urban Forest planting priority areas*
Other TRCA PrioritiesNature-based recreationEnvironmental learningLocal food	 Trails strategy – High priority trail connections Opportunities for environmental learning – seniors, early childhood education (UAZ screening) TRCA Asset Management Priorities* Urban Agriculture Priorities*

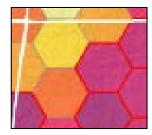
^{*}Not applicable or not available in Vaughan

Mapping Compilation

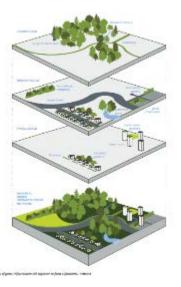


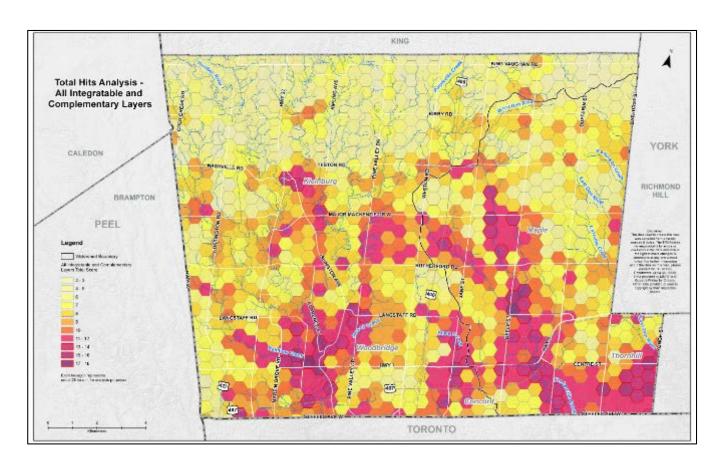
Preliminary Screening

Criteria - 'Multiple Hits' Grand Total – all priorities



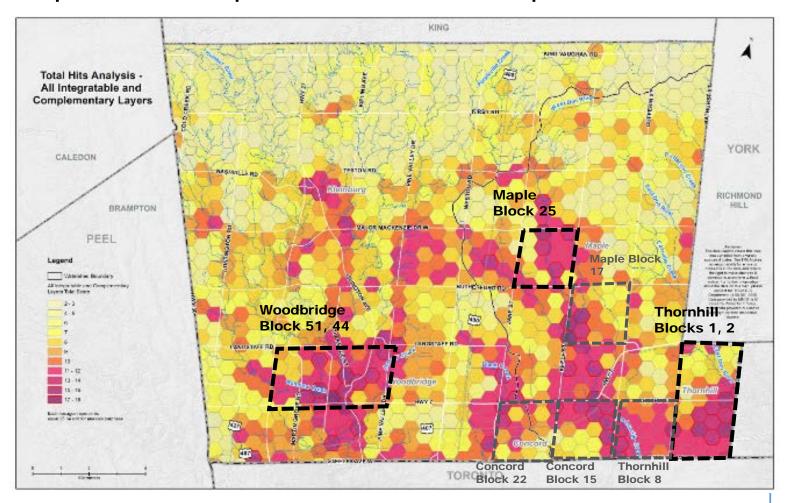
25 ha Hexagonal Units





Preliminary Results

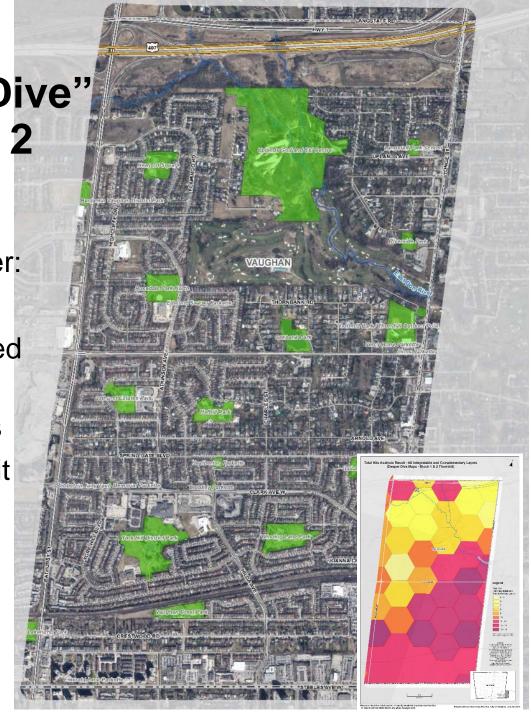
Multiple Hit Hot Spots - Areas for "Deeper Dives"



Example "Deeper Dive" Thornhill Blocks 1, 2

Recommendations to consider:

- Key drivers, timing
- Local context, other planned projects
- Key objectives, co-benefits
- Potential Integrated Retrofit solutions
- Partners



Example "Deeper Dive" Thornhill Blocks 1, 2

Potential SNAP Integrated Retrofit Solutions:

- Residential Multi-objective Home Retrofit Program (energy, water, LID, flood proofing)
- Infrastructure / Public Realm –
 Greening of Clark Ave (LID, trees,
 pedestrian realm, parks), Oak Bank
 Pond as a platform (call to action)
- ICI Golf Course alternative irrigation sources
- Innovative Funding Engage the community to identify projects for a potential City LIC pilot

Key Objectives:

- Stormwater Management
- Public Realm Renewal
- Energy efficiency
- Water efficiency

Co-benefits:

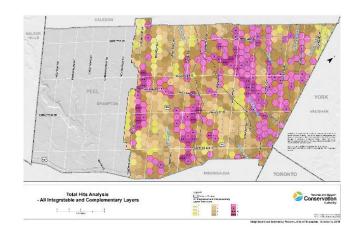
- Emergency preparedness, Community Resilience
- Health & Well-being for Seniors
- Skills training, community benefits for disadvantaged populations

Neighbourhood Screening – Next Steps

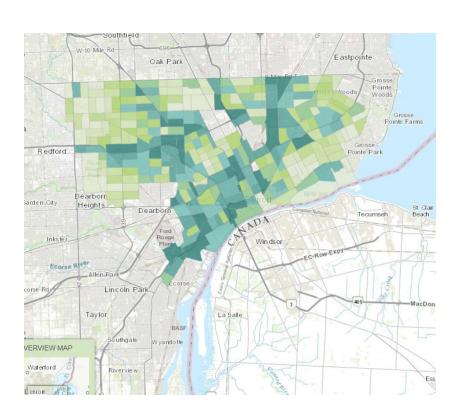
- Confirm future SNAP location, draft recommendations around other integrated retrofit projects
- Coordinate aligning projects, work planning, fundraising

... on to the City of Brampton!

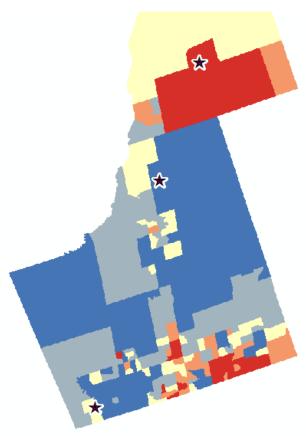
- Apply Screening Process with Partners
- Coordinate with Credit Valley Conservation Authority



Discussion – Shifts toward Integrated Planning



Green Infrastructure Spatial Planning (GISP) Model Detroit



Community Hubs Model United Way Greater Toronto

Discussion – Key Takeaways

- A collaborative process with shared outcomes
- Brings together departments/partners to realize cost sharing advantages and new working relationships
- Supports Integrated Asset Management by improving the knowledge base for decisions at earlier stage
- Streamlines work plans by fast tracking project scoping stages
- Screening process maximizes impact of planned investments in climate action, infrastructure renewal

