



Integrated Infrastructure Renewal - Lessons from SNAP

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Aging Infrastructure and Climate Risks





SNAP

Sustainable Neighbourhood
Retrofit Action Plan



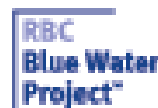
A neighbourhood-based solution
for sustainable urban renewal
and climate action.

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



Partnership-based

SNAP Founding Partners:

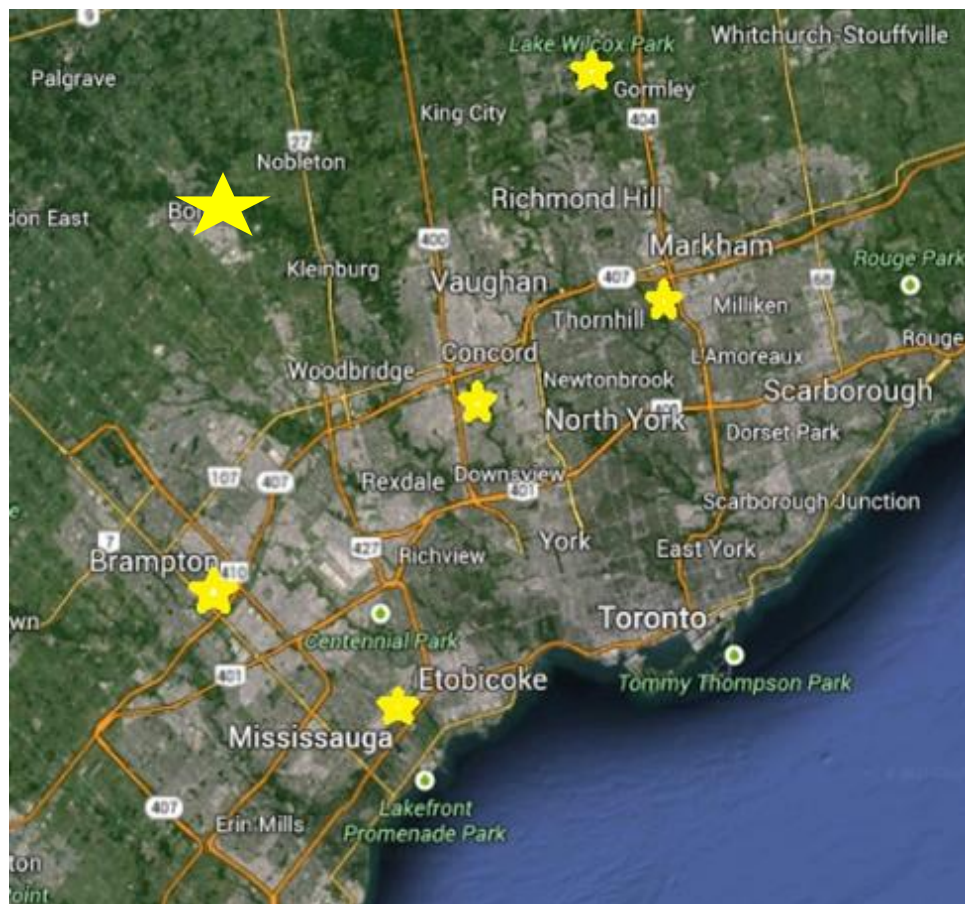


And hundreds more partners...

...community groups, businesses, utilities etc.



Six SNAPs in the GTA – and growing



Typical SNAP Action Areas

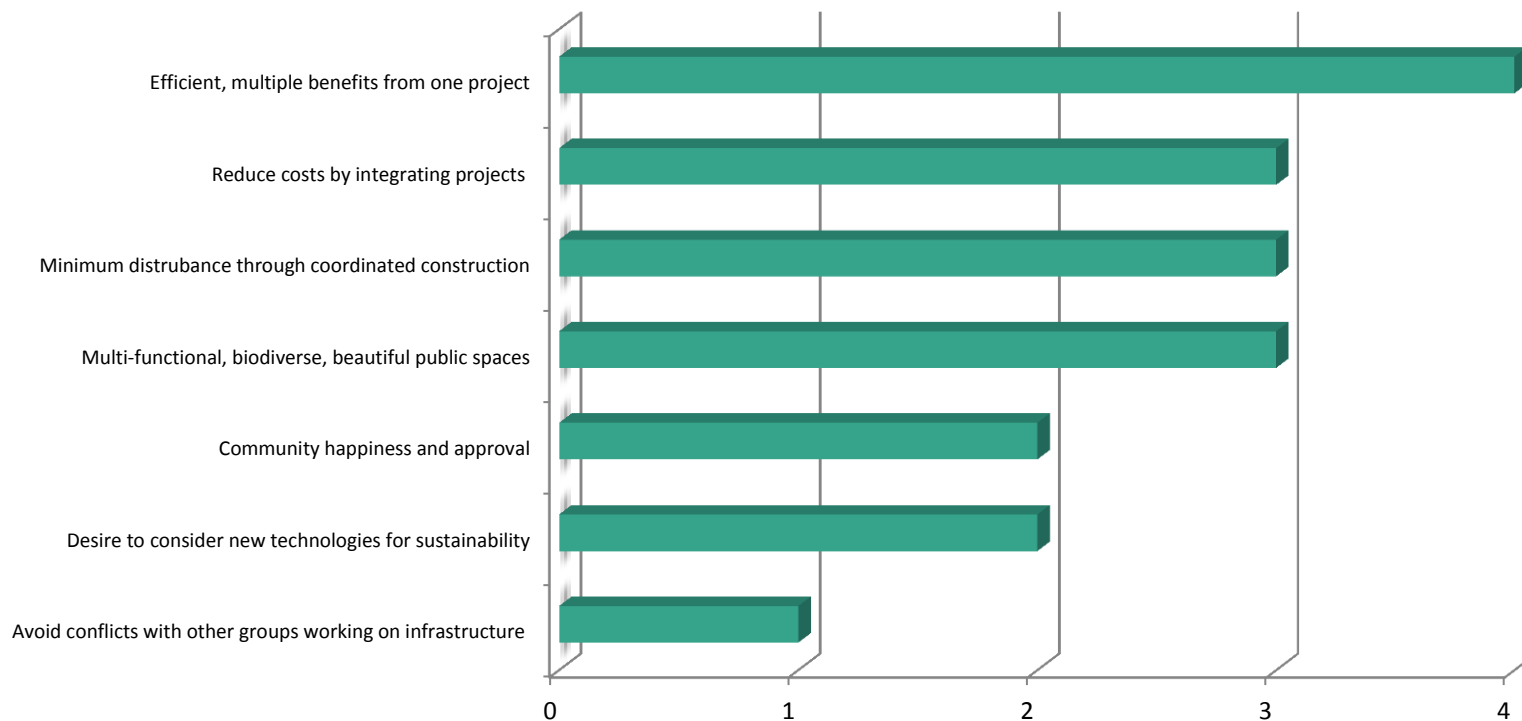




Integrated Infrastructure Projects

“Integrated design means better projects with multiple benefits”

Why is an integrated approach to infrastructure renewal needed?





Case Study #1: Glencrest Park Renewal

Bayview Glen Neighbourhood, Markham



Glencrest Park Renewal





Glencrest Park Renewal

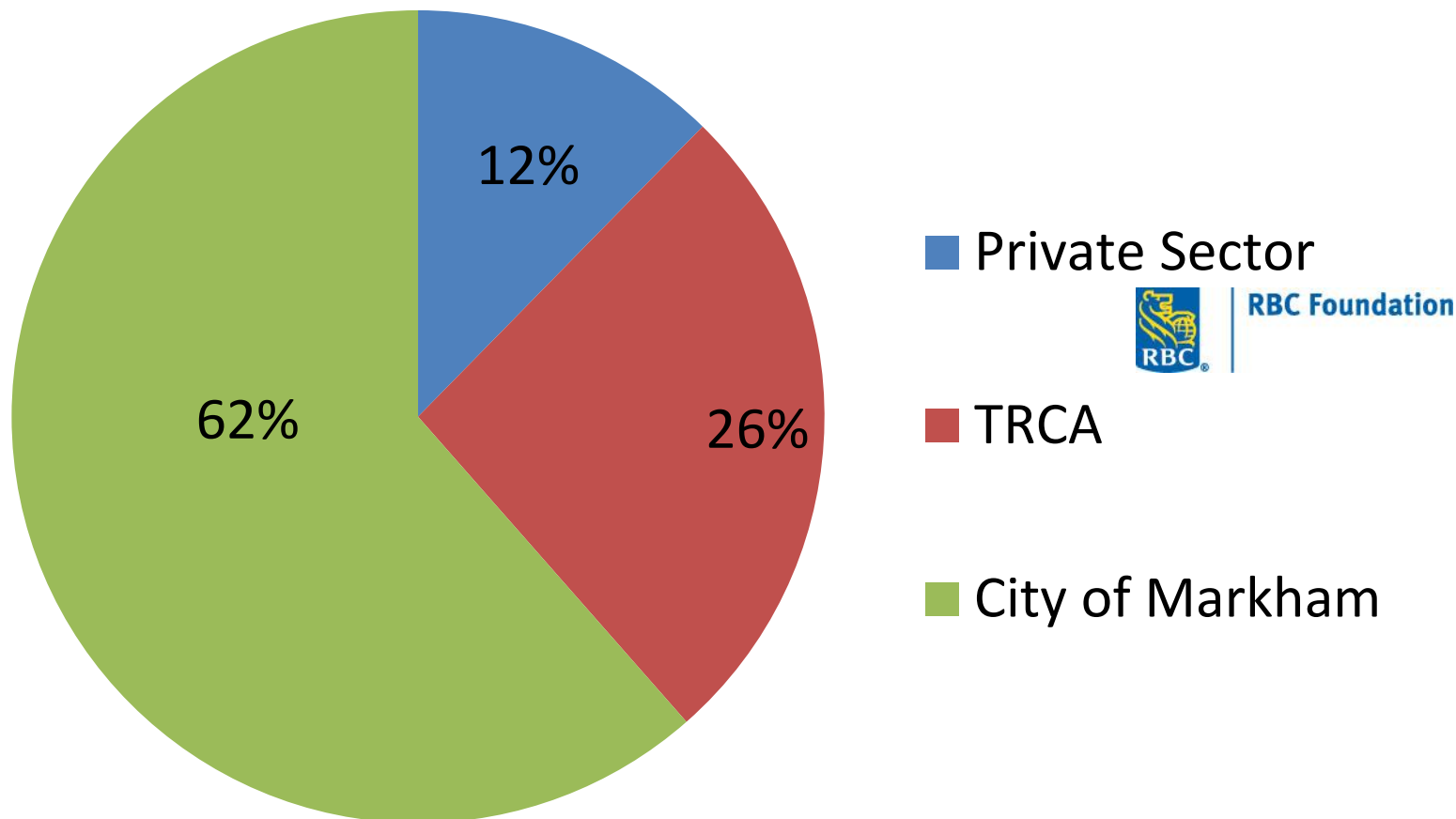


A traditional storm sewer replacement project was re-imagined to add recreation, beautification and ecological function.



Glencrest Park Renewal

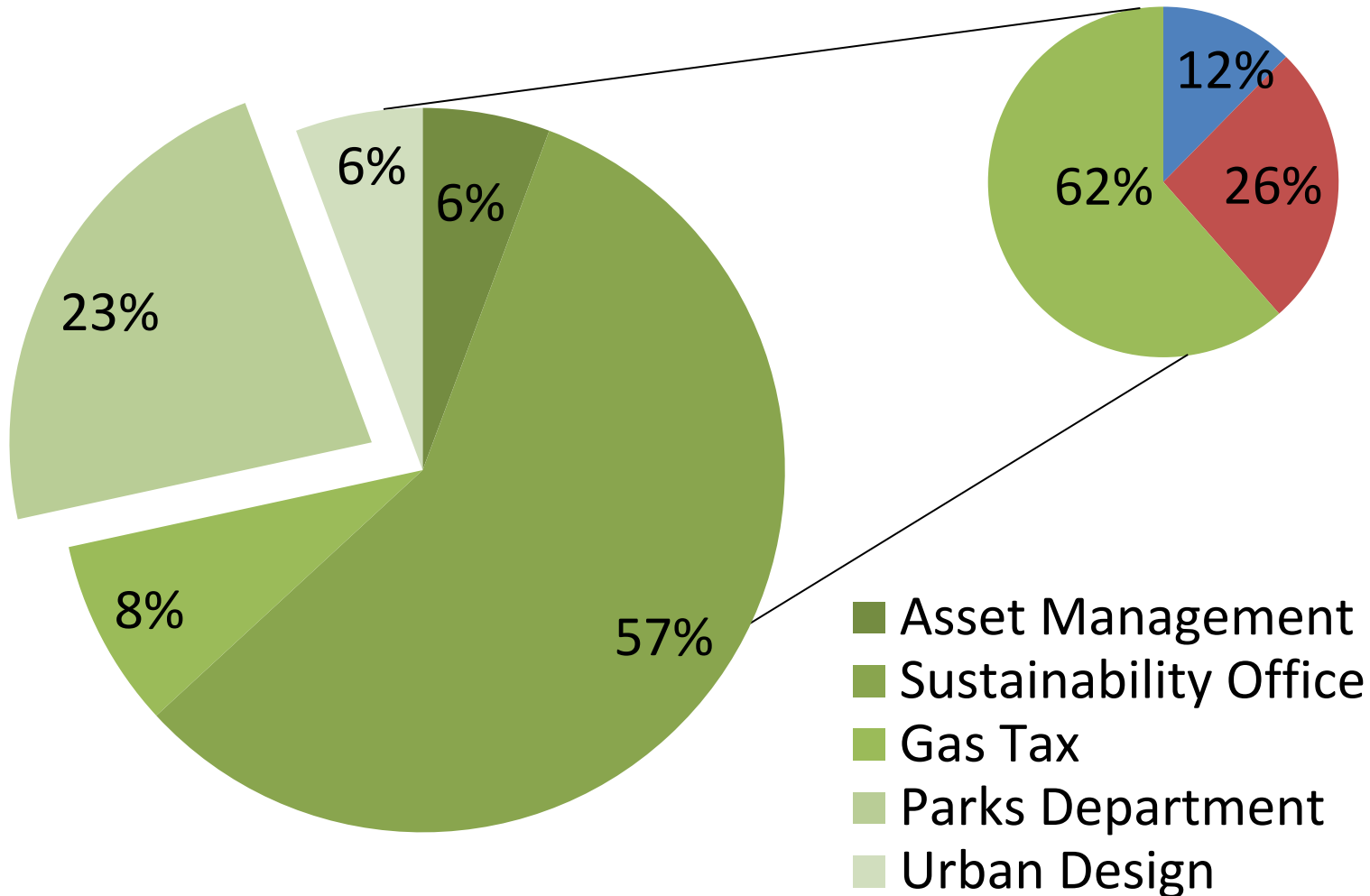
Funding Model





Glencrest Park Renewal

City of Markham's Budget





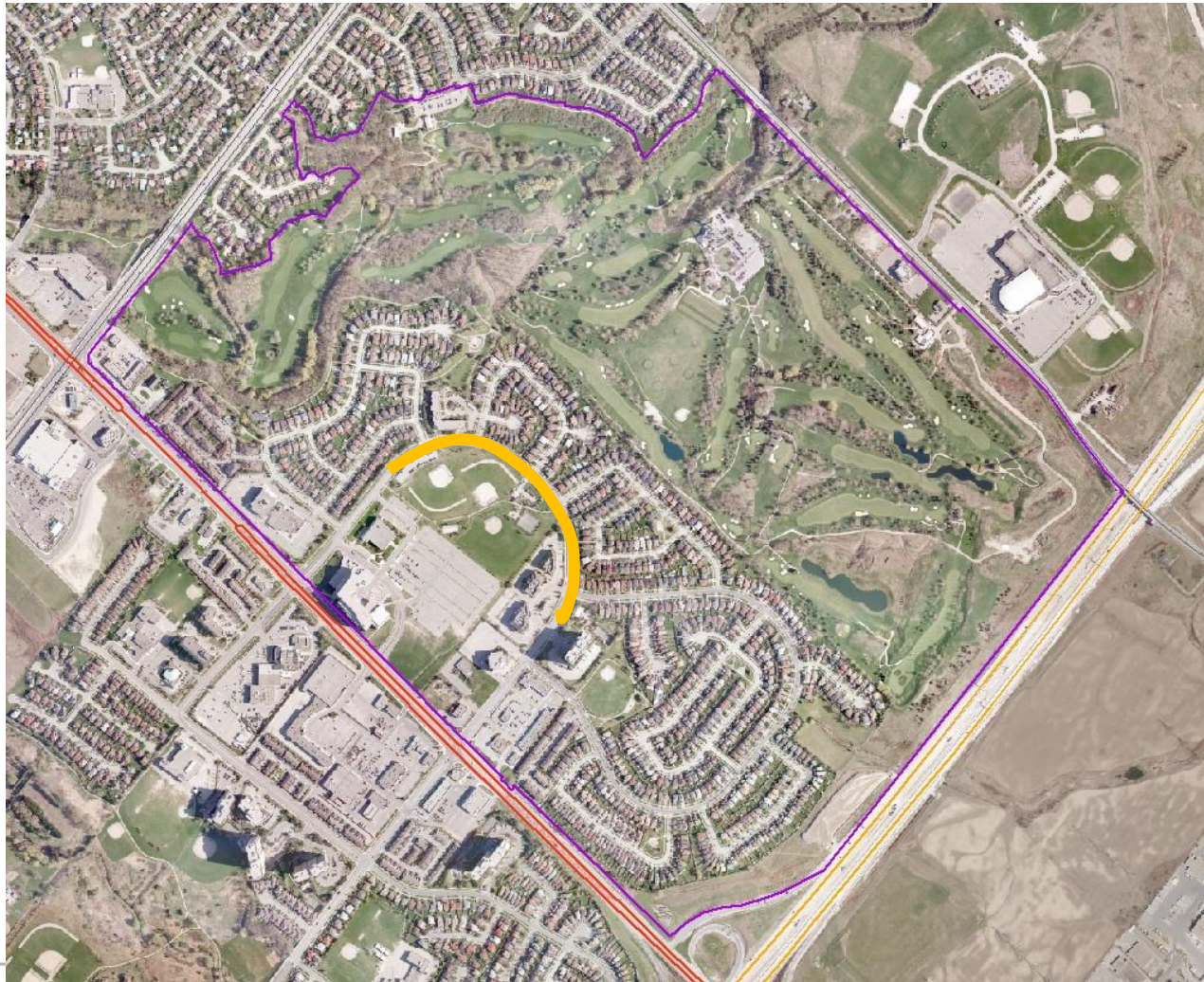
Glencrest Park Renewal





Case Study #2: County Court Bioswale

County Court Neighbourhood, Brampton





County Court Boulevard





County Court Bioswale



Demonstrating a strategic financing model and interdepartmental cooperation. Basis for engaging community and measuring outcomes



Case 2(B): Upper Nine SWM Pond





Upper Nine SWM Pond Retrofit & Re-use



Integrates stormwater treatment, community amenities and irrigation supply for golf course.



Lessons learned

Barriers	Enablers
1. Scope and design limitations when projects are too far along planning and approvals process	<ul style="list-style-type: none">• Early identification of opportunities• Integration facilitator/coordinator
2. Silos, inflexible mandates, budgets, processes and workplans	<ul style="list-style-type: none">• Clear mandate for integrated projects• Flexibility to take advantage of opportunities
3. Timing for effective engagement of all stakeholders	<ul style="list-style-type: none">• Early involvement of relevant in-house expertise and decision-makers• Culture for inter-departmental coordination
4. Buy-in, teambuilding, and ownership of project objectives	<ul style="list-style-type: none">• Select people with an innovation mindset; infuse “regular teams”• Set shared vision, responsibilities as a group



Lessons learned (cont'd)

Barriers	Enablers
5. Concern that projects could be more expensive and time-consuming than 'business-as-usual'	<ul style="list-style-type: none">• Community engagement builds excitement and support• Business cases to show resulting project achieves greater outcomes
6. Different stakeholder levels of risk aversion versus optimism	<ul style="list-style-type: none">• Use SNAP to pilot new projects• Prepare contingency plans as a group and share experience/risk
7. Inflexible permitting processes	<ul style="list-style-type: none">• Early engagement with permitting agencies
8. Unforeseen issues (a.k.a. you don't know what you don't know)	<ul style="list-style-type: none">• Build a buffer into project timeline• Keep focused on key goals



Recommendations for advancing integrated infrastructure projects

1. Create a process for identifying and prioritizing integrated, multi-objective infrastructure project opportunities at the strategic planning stage.
2. Operationalize integrated projects as the regular way of doing business.
3. Infuse “regular” project teams with new members and set the norm for innovation.
4. Work with permitting agencies to identify ways their processes can be more flexible and streamlined for innovative projects.
5. Make adaptive management the norm.
6. Share a checklist of project-scale lessons-learned with project managers.



Conclusions

- Planned infrastructure renewal projects can be leveraged to achieve greater impact by taking an integrated, multi-objective approach
- SNAP's neighbourhood strategy can facilitate collaboration, inform project designs and build support for implementation
- Enabling factors can be established to help realize the full potential of integrated infrastructure projects.

What's Next?

- Neighbourhood Screening Process
- FCM Sustainable Communities Conference – SNAP Session



Thank you!



RBC Foundation



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"In a SNAP". *ReNew Canada*. May/June 2016