



High-Rise Waste Diversion in Toronto:

A discussion of challenges, opportunities and solutions

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Introduction

For 30 years TEA has been active on waste diversion education and promotion. In recent years, TEA has had a number of waste projects with a major focus on multi-residential building diversion and mobilizing communities to reduce waste. TEA was granted two Ontario Trillium Foundation Seed Grants in 2016:

- a *Multi-Residential seed grant* (SD94617) to develop and test tools to motivate waste reduction among multi-residential building stakeholders (reporting in July 2017),
- a *Zero Waste Network grant* (SD93318) to explore collaboration opportunities and needs among community based groups working on ‘zero waste’ (reported in May 2017)

Both of these projects led to the development of partnerships and lessons to motivate waste reduction in Toronto with a focus on multi-residential communities.

Below is a discussion of the issue, solutions and next steps to address low waste diversion rates in multi-residential buildings. It is informed by TEA’s pilot project experience with two Seed Grants, observations from the City of Toronto Mayor’s Towering Challenge waste competition, recommendations from waste diversion pilot studies carried out by the City of Toronto’s Tower Renewal project, and academic literature on motivations for behaviour change.

Defining the Problem

More than half of Toronto household are in multi-residential buildings, and this number is growing. People living in multi-residential buildings face significant and distinct challenges to properly utilizing recycling and composting services. These challenges are confirmed by evidence which shows that - in general - multi-residential buildings have a recycling and composting rate (waste diversion rate) that is significantly lower than those of houses.

The City of Toronto’s Solid Waste Management Services provides waste services to the majority of multi-residential buildings, including recycling and organics collection, and charging only for garbage disposal to provide cost incentives to divert more waste.¹ They also provide educational services such as communications materials in 18 languages, free workshops and lobby displays, and some resources for property managers. Despite these efforts to address the challenges, the waste diversion rate in Toronto’s multi-residential buildings is still far too low at 28%, compared to 65% for houses.

Challenges to high diversion rates in multi-residential buildings is not unique to Toronto. Local and international research note some key, high-level challenges common to all multi-residential buildings: poor or absent access to waste diversion tools and systems, a need for more awareness or education among residents, and a lack of individual accountability and feedback.²

However, TEA’s Multi-Residential OTF Seed Grant highlighted a small, but growing, number of buildings in Toronto that have overcome these challenges and are reporting waste diversion rates as high as 80 or

¹ About 80% of multi-residential buildings are customers of the City’s waste services, the remaining choose services from private waste companies that may offer fewer or different waste diversion services.

² City of Toronto’s Solid Waste Management Services notes these barriers, also mentioned in the Tower Renewal pilot reports from 2010, 2011 and 2013.

90%. These buildings used innovative solutions to improve access to diversion tools, combined with existing incentives and educational tools. Our project tested and evaluated how the success of these buildings can be replicated in others.

Our project highlighted other key factors that need to be addressed to meet the waste diversion challenges noted above:

- Negative perceptions and messages de-motivate buildings, making it difficult to get started
- Lack of detailed data to demonstrate innovative solutions
- Need for robust supports for building management

These key barriers are outlined further below.

Based on TEA's Multi-Residential waste Seed Grant project, the City's Tower Renewal Program³, the Mayor's Towering Waste Challenge, and other research findings from the behavioural sciences, TEA has identified strategies and solutions to addressing these challenges.

³ Toronto's Tower Renewal pilot feasibility report from 2010 includes a literature and research review of other pilot studies, and outlines a series of recommendations to increase diversion in high-rises.

Challenges and Barriers

Barrier 1: Lack of easy access to diversion tools

The most visible and persistent challenge for high rise buildings in Toronto is the design and layout of the buildings which generally make it easier to dispose of waste than to properly recycle or compost.

Until recently, high rise buildings were required to install only one waste chute to make garbage disposal as easy as possible allowing residents to dispose of garbage without leaving their floor.⁴ As diversion services have been added over the years, bins to collect recycling, or organics had to be placed in other, less convenient locations, such as the parking garage, ground floor room or outdoors behind the building.

Approximately 75% of high rise units are in buildings built before 2006, it is safe to say that most residents in high rises have easier access to disposal than to diversion.⁵

Barrier 2: Negative messages de-motivate people: Residents do not believe they can increase their individual and building diversion rate.

Environmental psychology research shows that for individuals or groups to take actions, they must believe that they are able to make that change, and trust that change will have an impact.⁶

Unfortunately, negative messages about the difficulty of a particular action and reporting the low participation rate of people doing that action only provides negative reinforcement and serves as a disincentive.

This is exactly the situation we find ourselves in with respect to waste diversion in Toronto high-rises: most messages about recycling and composting in high rise buildings is that they are very low, and that the barriers are complex and likely insurmountable.

Common statements we've heard from the public, media, building staff and even policy makers include things like: "Tenants are lazy, and they just want to put everything in the garbage chute", "People are always moving in and out, it's too hard to keep up with the rules" or "Our building is too diverse - multiple languages makes it difficult to teach everyone" or "New Canadians don't know the rules here" or "The building manager doesn't care - it all gets dumped into the same bin anyway".

Add to this misguided public ad campaigns that compound this negative perception: a 2013 City of Toronto ad campaign to promote recycling in multi-res buildings reinforced negative messages, stating "Far too many condo and apartment residents toss recycling in the garbage...".⁷

⁴ Current regulations in Toronto require that all new multi-residential buildings have capacity for three waste streams on each floor.

⁵ City of Toronto - 2016 Census Background: Age and Sex; Type of Dwelling, May 2017.

⁶ Dr. McKenzie-Mohr notes that behaviour change often requires a combination of one-time actions to set up new systems (e.g. put up signs, purchase new recycling bins), as well as commitment to ongoing new behaviours (e.g. continue to use & maintain bins). The barriers and motivations to these one time actions and long term changes may be different, and require different strategies to address them. (June 2017, Zero Waste Ontario Conference presentation)

⁷ See Global News article here about Toronto's efforts to increase diversion that exemplifies the many negative messages about multi res diversion, including the ad campaign, which reinforces negative attitudes.

<http://globalnews.ca/news/1008874/toronto-blue-bin-recycling-program-a-challenge/>

As environmental psychologist Doug McKenzie-Mohr warns “highlighting the frequency of undesirable behaviour” should be avoided, as it simply conveys that this behaviour is normal and expected, and will not motivate change.⁸

Barrier 3: Lack of detailed diversion data for different multi-residential buildings and their waste management models limits uptake of viable and innovative solutions

A handful of Toronto’s leading buildings have achieved extremely high - virtually unheard of - diversion rates of 80 to 90%.⁹ However, municipal data on diversion only indicates the average diversion rate for all multi-residential buildings across Toronto. The City does not report diversion rates at the building level, or ranges of diversion rates, so these positive outliers remain obscured.

There are also very few case studies or research reports anywhere in the world about multi-residential buildings with such high rates of diversion. Dr. Virginia Maclaren from the University of Toronto is an expert in solid waste management systems worldwide and she has noted “Studying buildings that report high levels of diversion can provide important insights into conditions that might be replicated in other buildings.”¹⁰

Due to this lack of robust data profiling buildings with high diversion rates, waste experts, service providers and policy makers hold the belief that in general, multi-residential buildings simply cannot achieve high rates of diversion. They view reports about such high diversion with skepticism.

For example:

Two Zero Waste Model buildings in Toronto have used an innovative approach to tackle organics, the largest category of waste, 50% or more of household waste. Mayfair on the Green is an older condominium with a single chute waste disposal system. The building found an innovative way to improve diversion: By changing their waste chute to an organic waste chute, they made diversion easier than disposal, and the building now generates 85% less waste than they did prior to converting their chute.

However, because this innovative organics management method has not been adequately validated through third party audits and detailed analysis, the City Solid Waste Management Services have been reluctant to recommend this model for other high-rise buildings they serve. They are concerned about the contamination (garbage and recyclables) that may end up in the organic waste stream.¹¹

Barrier 4: Need for robust support for building management

TEA observed, and research suggests, that property management staff have minimal, if any, training on waste diversion, and a very broad range of building responsibilities that compete for their attention and

⁸ Doug McKenzie-Mohr and P. Wesley Schulz, “Choosing effective behaviour change tools” paper presented to the Behaviour, Energy and Climate Change Conference, California, 2012 <http://media.cbsm.com/uploads/1/BECC.pdf>

⁹ Individual building diversion levels are estimated based on number and type of bins set out for collection. These diversion estimates are not directly comparable to City reported diversion rates.

¹⁰ Dr. Virginia Maclaren, Chair, Dept of Geography & Planning, University of Toronto in email communication, June 2017.

¹¹ Communicated to TEA staff by City of Toronto Solid Waste Management Staff in conversation and by Mayfair on the Green superintendent when explaining the process they had to follow to secure organics collection after converting their chute.

focus. However, significant research has shown that property management and on-site staff are critical to the success of diversion programs.¹²

Unfortunately, another complicating factor in addressing this barrier is that superintendents and building staff often have a high turnover rate, with the average manager staying in one building for only three years.¹³

Turnover of staff occurred at three of the eight buildings that TEA worked with during the Seed Grant period: new Property Managers at two buildings did not continue efforts to increase diversion initiated by their predecessor. One building did not believe they needed to continue work, and the other put off scheduling additional resident education events indefinitely.

¹² Tower Renewal reports - feasibility study, final reports and City of Toronto reports for the Continuous Improvement Fund - 2016 - note that training and focusing on building staff is crucial.

¹³ This is a common problem noted by other programs to increase diversion. The Tower Renewal pilot project report (2013) and a City of Toronto Solid Waste Management Service report (2016) noted that in a number of situations, superintendents and property managers that participated in a pilot test or special training had left their building before a follow up meeting could be completed.

Solutions for Overcoming Barriers

We know that there are solutions to overcoming these barriers, demonstrated by the small but growing number of buildings in Toronto - Zero Waste Model buildings.

TEA's Multi-Residential seed grant project tested a number of strategies to address these challenges and barriers to replicate the success of the Model buildings. These results are validated by insights from other programs - including TEA's Zero Waste Network seed grant, the Mayor's Towering Challenge competition, pilot projects and research.

TEA's approach to addressing these issues centre on three areas:

- Shifting attitudes and beliefs
 - Showcase successful multi-residential buildings through tours, profiles
 - Collect robust data through third party validation to demonstrate success of leading buildings
- Secure motivation and commitment from buildings
 - Target and provide extensive support to building managers and staff
 - Engage teams of building stakeholders
 - Identify and work with motivated buildings to achieve success quickly
- Help motivated buildings secure necessary tools and skills:
 - Develop and implement Waste Reduction Plans for motivated buildings
 - Provide training & 'matchmaking' for motivated building

1. Shift attitudes and understanding about what can be achieved to inspire action and increase support for and uptake of innovative solutions.

Solution: Showcase high-rise building zero waste success stories to dispel myths and motivate change

In TEA's Multi-Residential Seed Grant, we worked closely with condominium stakeholders to showcase and replicate the waste diversion success at Mayfair on the Green, a condo in northeast Scarborough, which reduced the waste it sent to disposal by 85% over 2 years.

The Mayfair on the Green story is particularly powerful as it faces some of the barriers and challenges typically cited as preventing high levels of diversion: most significantly it has only one waste chute and the building is very diverse with primarily New Canadian residents speaking 8 different languages. This Scarborough condo is generating only one dumpster of waste per month (down from 20).

To counteract the negative messaging about multi-residential diversion that is prevalent in Toronto, we used positive profiling of outlier buildings like Mayfair on the Green, who are diverting far above the average to shift thinking about what can be achieved. We shared the success of Mayfair in various formats including an infographic summary of their efforts, publishing a case study, attracting media attention and offering both tours and mentorship opportunities to other condominium stakeholders. Our efforts have had an impact:

- A number of City staff, local Councillors and the Mayor have visited Mayfair on the Green to learn more.
- Toronto Mayor John Tory toured the Mayfair building in 2016 and was inspired to create the Mayor's Towering Challenge, a competition to challenge other buildings in Toronto to improve their waste diversion.
- TEA received a great deal of media calls about the Mayfair success story including CBC News, CBC Radio, Global News, Toronto Star, MetroNews and some local media outlets.
- News stories, blogs and infographics about Mayfair on the Green were some of TEA's highest-performing content on Facebook and Twitter. TEA received emails and phone calls from Toronto high-rise residents who were eager to do something in their building

Beyond TEA's promotion of the Mayfair success, use of case studies was helpful in other instances:

- The Mayor's Towering Challenge competition also made use of case studies and success stories about Mayfair on the Green to inspire action and highlight creative solutions among participants. Some of these success stories were highlighted in local media about the Towering Challenge.
- TEA's Zero Waste Network Seed Grant project used case studies and profiles of 'zero waste heroes' and community organizations to showcase possibilities and inspire ideas about zero waste actions. These profiles elicited a strong positive reaction among our supporters and the general public.

Providing additional profiles, and case studies of strategies and achievements from other buildings is necessary to demonstrate that Mayfair is not alone.

Solution: Site tours are key strategies to motivate change

Site tours proved to be a powerful and effective tool to showcase success and to motivate action. We found that site tours of Mayfair on the Green, and of other leading buildings caused a strong positive reaction in participants - even if they had read and heard about the building details and practices in advance.

Additionally, site tours allowed participants to ask questions and hear from the building staff and residents about details, increasing confidence in the effectiveness of their tactics.

During our Seed Grant we offered four tours of Mayfair, with 35 people attending from 8 different buildings. As part of the Mayor's Towering Challenge, TEA also co-hosted with the City 3 tours of leading buildings (Mayfair, Millgate, Hugh Garner Co-op). This instilled confidence in simple solutions as it addressed concerns:

- Two buildings followed Mayfair's lead and have since followed through with their plans to convert their single waste chute into an organics chute (see example below).
- Another building was convinced to set up a 'reuse' shelf where residents can leave items for others to take after seeing that Mayfair prevents the area from getting cluttered by clearing it every two weeks to donate to charity.

Providing some summary information, resources lists and an outline of what the building achieved compliments the tour. In future, tours of other leading buildings are needed to demonstrate success in different conditions.

Examples:

- In late 2016, as part of our OTF Seed Grant project, TEA arranged for key decision-makers of a leading building in Etobicoke to tour Mayfair on the Green. The Superintendent, Property Manager and two resident Directors who were active in promoting waste diversion attended. The group was particularly interested in how Mayfair staff converted the organics chute in terms of technical details and persuading residents. One of the Directors noted afterwards that “Touring Mayfair in person and seeing how they had converted their chute and dealt with the issues was a great help to us. It was something we wanted to do, and seeing it in person helped answer some questions and gave us the confidence to move ahead with our plans.” (Elaine Buckstein, Director at Millgate Manor, 812 Burnhamthorpe Road)
- Mayfair’s Superintendent Princely Soundranayagam showed the group the technical details about connecting the organics bin to the chute, as well as information about how to secure cooperation from residents, and the need for repeated education and follow up to be effective. Following the tour, the building staff identified operational and infrastructure changes that they could make to modify their chute, and the team presented the idea at the annual AGM for a vote. A few months later in the spring of 2017, they made the change and have seen very positive results.

Solution: Third party validated waste audits to quantify results

Third party analysis can be used to validate the success of the Zero Waste Model Buildings and increase acceptance of innovative solutions by property managers and policy makers. This is particularly important for buildings using innovative solutions, such as converting a single garbage chute into an organics-only chute.

Waste audits using standardized methodology can confirm that achieving high diversion levels is possible. Surveys and interviews can provide data on the knowledge and attitude of residents and the experience of building staff. An analysis of time and cost resources used to maintain high diversion levels will help assess final savings and resources required. This information will support better decision making for policy makers and for other buildings looking to increase diversion.

This validated data will also help to build a picture and understanding that the average diversion rate of 29% obscures important details, and could prompt more detailed tracking and breakdown of data reporting by municipal governments.

Fortunately, Mayfair on the Green and other leading buildings like Millgate Manor are prepared to open up their buildings for waste audits and analysis of their organic waste and diversion programs to adequately measure the success of their organics chute model. Dr. Maclaren from the University of Toronto has confirmed support to design and carry out such an analysis.

2. Secure commitment from a team of motivated building stakeholders

Solution: Target building managers and property staff for support

TEA's experience, and research confirms that property management and building staff are critical to any efforts to increase waste diversion in buildings. As the Tower Renewal pilot project noted: "Results from both the research and consultation process showed that property managers and superintendents are the key players to making a difference when it comes to waste diversion." (p. 45, Genivar)

Efforts to increase diversion in buildings must prioritize ongoing support to on-the-ground building staff who maintain diversion systems and property management who allocate resources.

Solution: Engage multiple building stakeholders to ensure more resilient plans

While building staff are the primary targets for support, engaging and securing participation from a whole team of building decision makers can help guard against the loss of knowledge when staff turnover occurs. More importantly, it results in stronger plans that consider multiple perspectives and distributes the responsibility for the success of the program among more people.

TEA's Multi-residential Seed Grant encouraged the participation and training of other key building decision makers, such as property managers, building cleaning staff, condo and co-op board members and other very active residents (e.g. 'green team' members). We observed that buildings with full teams were more successful:

- Changes in the Property Management company at Mayfair on the Green did not affect diversion programs - largely because the permanent Superintendent is the lead on diversion, but also because other building staff, the condo board, and residents are in strong support. Clear systems and procedures (e.g. a welcome package for new residents) are outlined on paper, making it easy for new staff to maintain the system. In contrast, TEA saw plans to improve waste diversion disappear when building managers at two other buildings changed.
- Winning buildings in the Mayor's Towering Challenge displayed a strong commitment from building managers to test out, make and maintain changes. A number of winning buildings included a broad team that included residents and committees.¹⁴ For example, resident leaders in the Hugh Garner Co-op have taken the lead to engage residents in new diversions systems and provide feedback to the building staff on potential improvements.

Solution: Target interested and motivated buildings to leverage quick results

Considering the number of buildings in Toronto - nearly 5000 - and the scale of the problem, TEA found it was most effective to use time and resources strategically by focusing efforts on those buildings that are highly motivated to act now.¹⁵

Our Multi-Residential Seed grant showcased the work of a few Zero Waste Model buildings, and proved that there are many more buildings and stakeholders that are inspired by these Model buildings and highly motivated to take action to improve diversion:

¹⁴ See [Media Backgrounder for the Mayor's Towering Challenge](#) - May 2017

¹⁵ We observed significant challenges and time requirements to persuade unmotivated building decision-makers. We received but did not accept invitations from individual residents asking for help to convince their board or neighbours to improve diversion

- Due to showcasing the success of Mayfair, TEA was contacted by a dozen buildings and representatives from three property management companies interested in exploring top diversion methods for their buildings.
- This interest was confirmed by the success of the voluntary Mayor's Towering Challenge: 143 buildings signed up to participate and confirmation from building management was required for registration. Eleven buildings stood out and won awards in a range of categories.¹⁶

3. Help motivated buildings secure necessary tools and skills:

Leverage peer learning to maximize success and build industry capacity

- Develop and implement Waste Reduction Plans for motivated buildings
- Provide expert support with training and coaching
- Facilitate connections and 'matchmaking' to waste diversion resources

Solution: Facilitate Peer Learning (Tours + Mentorship) Mentorship is a key tool as building decision-makers are more likely to take advice from their peers who have successfully increased their waste diversion than from the City or outside experts.

Buildings that are doing well at diversion are frequently happy to share what they know and provide advice to other buildings. We observed this at Mayfair, Millgate, Hugh Garner Co-op and other leading buildings that happily opened their doors for tours from other buildings. TEA confirmed with each of these buildings that they would be happy to offer further tours in the future to help other buildings.

This willingness to share experience was also witnessed in the Mayor's Towering Challenge - leading buildings were keen to share their success stories in building profiles, and by telling their story on their building website. City of Toronto pilot studies and reports confirm that past building management training events that include peer learning received positive feedback from participants.¹⁷

Guided building tours (as detailed above) are an effective way to demonstrate success and facilitate opportunities for peer learning.

- On tours we hosted and co-hosted, we observed that participants took the opportunity to learn from their direct peers, e.g. visiting superintendents would speak to the hosting superintendent about technical details, visiting board members would talk with other board members to discuss details related to cost or resident support.
- Peer learning and sharing also allowed building decision-makers to learn about and consider the perspectives of other members of their team. For example, a building staff member at Mayfair on the Green advised property managers and board members from other buildings to support the front-line staff and be patient with them, as they will deal with the brunt of the complaints or

¹⁶ See Media Backgrounder for the Mayor's Towering Challenge - May 2017

¹⁷ City of Toronto: Multi-Residential Audits and Superintendent Training January 2016
http://thecif.ca/projects/documents/872-Toronto_Final_Report.pdf

issues when new systems are established. This advice carried more weight with the tour participants as it came from a building staff rather than from an outside expert.

Providing simple training and materials to support building stakeholders who want to offer peer learning is also a valuable tactic. For example, providing an outline and tips for hosting effective tours, and helping buildings outline their key learnings. TEA supported Mayfair on the Green staff to document and outline their approach and results for City councillors and staff.¹⁸

Solution: Develop written Waste Reduction Plans with follow up commitments.

Environmental psychology research shows that using written commitments and ‘pledges’ dramatically increases the likelihood that a group will take action.¹⁹ To enhance waste diversion changes at buildings, the development and commitment to written Waste Reduction Plans should be used. This Plan can act as a ‘pledge’ to act, while helping guide the building’s next steps. Additionally, a written Waste Reduction Plan helps to distribute the leadership among other building decision-makers and can ensure continuity with the plan if staff or residents change.

TEA’s Multi-Residential Seed grant supported buildings in assessing their current waste system. We used interviews with building decision-makers and site visits to provide a benchmark and to identify opportunities for improvement.

Effective waste reduction plans include:

- Baseline assessment of existing waste diversion rates and systems
- Identification and prioritization of opportunities for improvement
- Identification of resource and information needs
- Timelines for implementation and follow up.

Solution: Expert support provides customized training, trouble-shooting and coaching.

Recommendations from the Tower Renewal pilot study, and results from the Towering Challenge suggest that more pro-active support with coaching and timelines for follow-up provide stronger motivation and increased action.²⁰

TEA’s Multi-Residential Seed grant project offered expert support for buildings that had identified areas for improvement. We offered site visits to evaluate existing systems and point out opportunities for improvement (e.g. improving or updating signage to improve clarity). We also offered ongoing support over a number of months to troubleshoot problems that arise, and coach building staff and decision-makers on next steps.

¹⁸ MTCC 996 - Waste diversion program report, 2015.

¹⁹ Dr. McKenzie-Mohr documents the impact of using written commitments to increase the likelihood of making sustainable behaviour change in the chapter “Commitment” of *Fostering Sustainable Behaviour*, 3rd edition, 2011

²⁰ Tower Renewal pilot project report 2013.

This expert support allows for customized training - based on the knowledge needs of the building decision-makers, TEA provided on the spot and follow-up training in key areas, for example on material sorting rules, and effective outreach strategies.

- In early 2017, a property manager from an apartment building in Thorncliffe Park contacted TEA for advice and support to improve diversion at a 16 storey building by converting the waste chute to an organics chute. Following a tour of Mayfair on the Green, the property manager developed a plan to engage students in the building to provide door-to-door education about the change. TEA staff provided training to help prepare the students - including facts about what happens to organics in Toronto, safety, and non-confrontational communications.

Solution: Expert support includes helping buildings find the resources and tools they need when they need it.

We observed that long resource lists and checklists were less effective than providing customized advice and resources specific to a building's needs when they were ready for that information.

Some simple examples include:

- Though the full list of materials collected by the City's free Toxic Taxi service is available at all times online, sending it directly to participants when they were setting up battery collection bins led to those buildings also setting up additional bins for other collected materials (e-waste, light bulbs, paint).
- Building decision-makers that toured Mayfair requested the name of the company that pays Mayfair for their used cooking oil to reuse as a bio-fuel. (Keeping the oil out of the drains has also saved Mayfair thousands in plumbing costs, providing additional motivation)

TEA also observed that making these smaller but visible changes can be one step toward bigger changes, as they are an important indicator to residents that building management supports diversion. These signals, and the visible use of these new services by other residents also shift social norms for the building and reinforce positive behaviour change to increase diversion.

Solution: Matchmaking with Zero Waste community groups

Community based organizations that offer services to help reduce, reuse, and repair can provide valuable services to motivated buildings, and also support positive culture and attitudes towards diversion. Preliminary findings from ongoing research at York University shows that people are more likely to donate reusable goods when they believe it is supporting a charity.²¹

TEA's OTF *Zero Waste Network* Seed Grant identified a number of community organizations and groups that offer zero waste services and are interested in making more connections to serve multi-residential communities.

- Diabetes Canada offers textile and household good donation bins and is seeking to get a textile donation bin in every multi-residential building. As a result of an event hosted by TEA, Diabetes

²¹ Part of a larger study by Dr. Calvin Lakhan, Faculty of Environmental Studies, York University - presented at meeting in June 2017.

Canada has now partnered with the CityPlace Residents' Association to increase textile donation bins in all downtown condos.

- Two participating buildings in the Mayor's Towering Challenge - including the Challenge winner - experimented with hosting repair events for their residents, with mixed success. The Toronto Repair Cafe is keen to support groups and residents that want to host repair events and cafes across Toronto.
- The Sharing Depot has outlined the concept of a Vertical Lending Library service operate sharing libraries in condominiums to help residents reduce what they consume and throw out. They are keen to test and develop the model and are seeking buildings to pilot the project in.

Conclusion

Based on TEA's experience with the Multi-Residential Seed Grant, and with our Zero Waste Network Seed grant, we have identified effective solutions and strategies to support increased waste diversion in Toronto highrises.

We have confirmed that showcasing and validating innovative and effective solutions can shift thinking about what is possible, providing inspiration and motivation to act. We have found that working with committed teams from leading buildings, and ensuring targeted support for building managers is necessary for follow through on plans. Finally, we have developed and tested methods to build capacity and to promote action - peer learning, tours, customized training and matchmaking.

For future application of these solutions, it is important to note that trust of the expert support agency is important. TEA's Multi-residential Seed grant noted that some building decision makers and residents preferred to receive information and support from non-City staff, and that they trusted information coming from a non-profit organization over information from businesses. We observed this preference increased in recent months as City staff have recently increased inspections and enforcement of penalties for high levels of contamination in recycling bins. This has made some buildings reluctant to invite City staff to their building or to admit problems with contamination to City staff.

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Nicole Mortillaro, December 3, 2013 Global News "Toronto aims to get more condos and apartments recycling"

<http://globalnews.ca/news/1008874/toronto-blue-bin-recycling-program-a-challenge/>

"MTCC 996 – Waste diversion program description" - prepared for Toronto Councillors by Mayfair on the Green, October 7, 2015

[Google doc here:](#)

TOWERING CHALLENGE

City of Toronto: Backrounder on Towering Challenge winning buildings - May 2017

<http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=af71df79b2df6410VgnVCM10000071d60f89RCRD&nrkey=6F1BA3C0A1BAEBCA85258123007FF789>

Also see Winning Buildings profiles :

Omni Forest:

http://www1.toronto.ca/City%20of%20Toronto/Solid%20Waste%20Management%20Services/1%20Overview/CAMP%20-%20Mayors%20Towering%20Waste%20Challenge/Documents/2017_03_28%20Omni%20Case%20Study%20AODA.pdf

Millgate:

<http://www1.toronto.ca/City%20of%20Toronto/Solid%20Waste%20Management%20Services/1%20Overview/CAMP%20-%20Mayors%20Towering%20Waste%20Challenge/Documents/temp/812%20Burnhamthorpe%20Rd.pdf>