



Get That Garbage Outta Here!

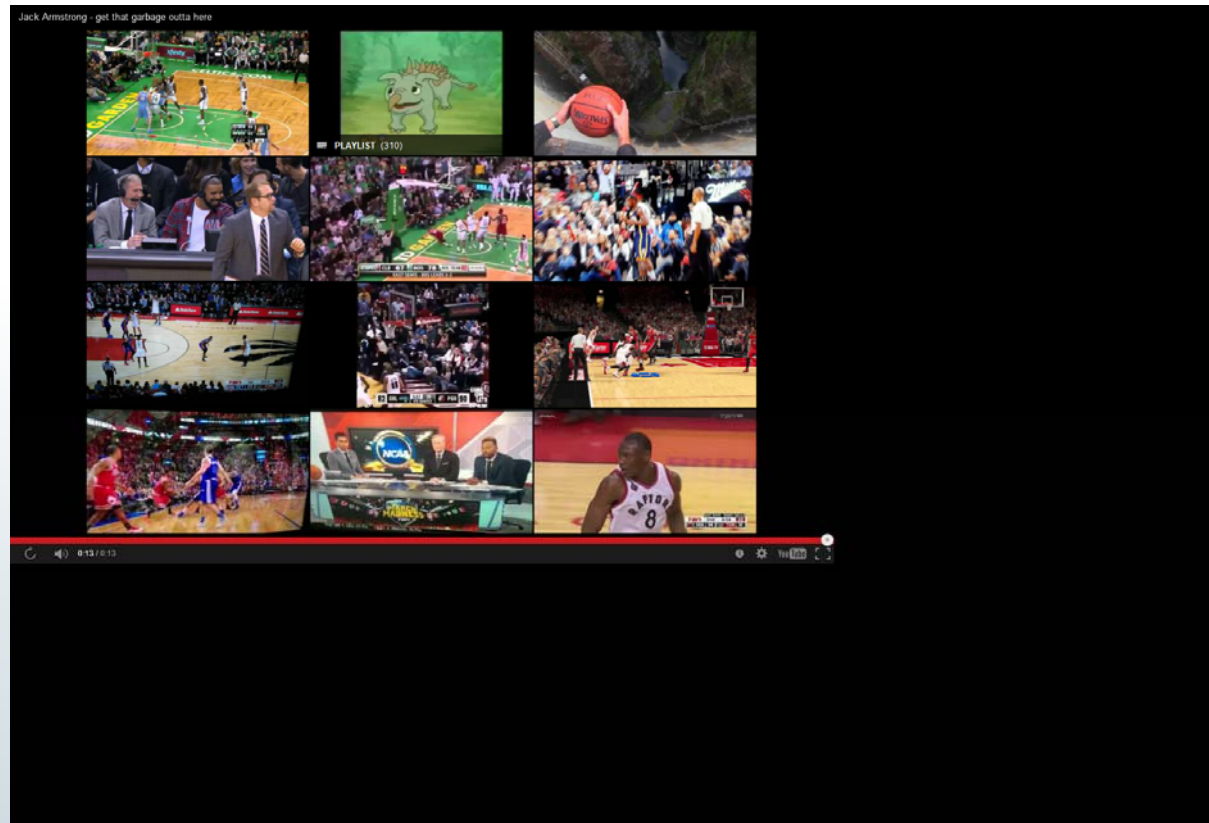
**Reducing Contamination in
Diversion Programs**

Betsy Varghese

May 25, 2017

Get That Garbage Outta Here!

2



Source: YouTube - CHUBROCK13



BAD THINGS HAPPEN WHEN THE WRONG ITEMS AND RECYCLING GET TOGETHER

How bad? Bad enough that it can damage equipment, cause workplace injuries at the recycling facility and ruin otherwise perfectly good recyclables.

Last year, **45,000 tonnes** of garbage was mistakenly put into recycling. That's a big problem you can help fix.

These items do not go in the Blue Bin
Know the Culprits

- 1 Organic waste** gets soaked up by paper and can ruin large batches of otherwise good recyclables. Food scraps go in the Green Bin.
- 2 Containers with food or liquid residue** from items like jars and take-out containers gets soaked up by paper and can ruin large batches of otherwise good recyclables. Empty and rinse before you recycle.
- 3 Textiles** can get caught in sorting machines, damage equipment and cause workplace injuries at the recycling facility. Donate or put in the garbage.
- 4 Tapes, chains, hoses** can get tangled in sorting machines, damage equipment and cause workplace injuries at the recycling facility. Put in the garbage.
- 5 Coffee cups** are lined with plastic wax and can't be recycled. Recycle sleeve and lid. Put cup in garbage. Black plastic coffee lids (and black plastic of any kind) can't be recycled, put in the garbage.

**Estimate*

தமிழ் (TAMIL) சென்ற வருடம், 45,000 டன் குவியல் கழிவுப் பொருள்கள் மிதமான தவறான பிரிவுகளால் கிடைத்தன. இந்த விதமாக நல்ல குவியல்கள் சேதமாகி, வேறுபாடு செய்யப்படாத கழிவுகளை உருவாக்கிவிட்டன. இதைத் தவிர்ப்பதற்கு, கழிவுகளை சரியாக பிரித்துக் கொடுக்க வேண்டும்.	中文 (CHINESE) 去年，估計大約有4萬5千噸垃圾被錯誤地放入了可回收垃圾箱，破壞了其它原本良好的可回收垃圾。如玻璃瓶、罐頭、食品容器、紙張盒、膠帶、繩子、塑膠等原本會和紙張一起進入藍箱（可回收垃圾箱）。	ITALIANO Lo scorso anno 45.000 tonnellate di spazzatura (dalla stima) sono stati erroneamente collocati tra gli articoli da riciclare rovinando così altri beni che possedevano tutti i requisiti per essere riciclati. Rifiuti organici, contenitori di alimenti, tessuti, cassette, catene, tubi	FRANÇAIS L'an dernier, 45 000 tonnes de déchets (estimation) ont été mis par erreur au recyclage et ont causé la perte de matières parfaitement recyclables. Les déchets organiques, les contenants avec de la nourriture, les tissus, le ruban adhésif, les chaînes et les gobelets de	PORTUGUÊS No ano passado, 45 000 toneladas de lixo (uma estimativa) foram colocadas por engano na reciclagem acabando por destruir artigos perfeitamente recicláveis. Desperdiços orgânicos, recipientes com comida, tecidos, fitas, correntes, mangueiras e copos de café não devem ser colocados na caixa de reciclagem.	ESPAÑOL El año pasado, se depositaron en unas 45 000 toneladas de basura contenedores de reciclaje, echando a perder objetos por lo demás perfectos para ser reciclados. Los residuos orgánicos, contenedores con comida, tejidos, cables, corrientes y tubos de café no deben ser colocados en la caja de reciclaje.
---	---	--	---	--	---



Source: City of Toronto www.melbourne.vic.gov.au/waste



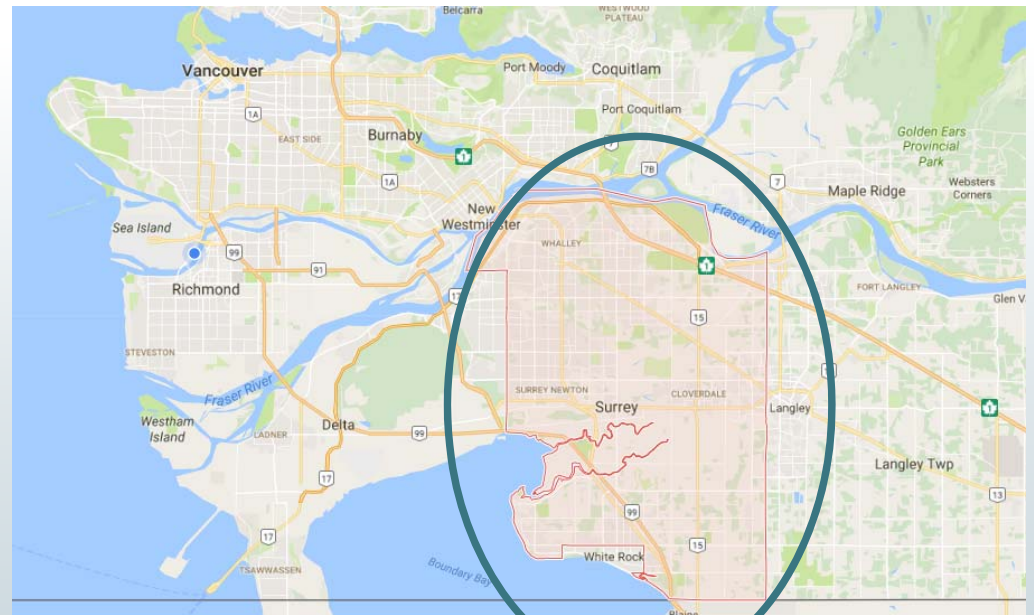
Outline

- Background on the City of Surrey
- Curbside recycling study
- Multi-residential building pilot project



Background – Surrey









- A member municipality of Metro Vancouver
- Second largest City (by population) in BC
 - ~520,000 (2016 Statistics Canada)
 - 100,000 households



Google Maps, 2017

Waste Management Programs

- Provides fully automated collection services to single family households
- Three cart system
 - Weekly organics collection
 - Biweekly single stream recycling and garbage collection (alternating weeks)

COLLECTION TYPE	WEEK 1	WEEK 2	WEEK 3	WEEK 4	
ORGANICS Kitchen scraps, food-soiled paper, and yard waste					PICKED UP EVERY WEEK
RECYCLABLES Mixed household containers and paper products					PICKED UP EVERY OTHER WEEK
GARBAGE Waste that cannot be composted or recycled					PICKED UP EVERY OTHER WEEK

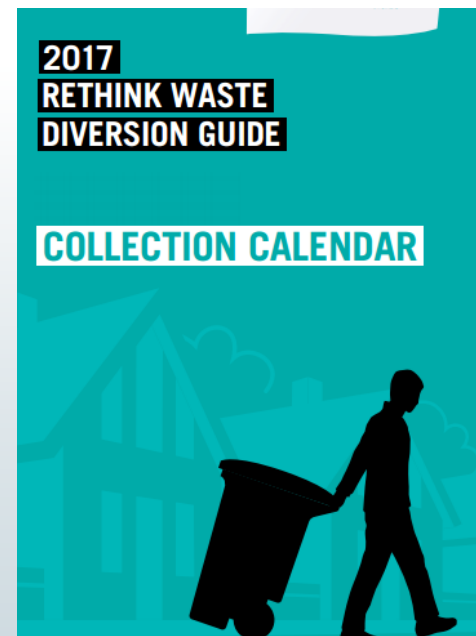
Recycle BC

- Residential packaging and printed paper recycling throughout BC
- City of Surrey is signed on to Recycle BC who report back to the City on contamination levels



Waste Education

- How to set out carts
- Recycling, Green Cart, Garbage, HHW, Large Item Pickup, Oil & Grease
- Return to Depot, Reuse, Donate or Sell
- Contact information
- Collection map



Recycling Guide

Check out our recycling guide to help you remember what goes in and what stays out.

[English](#) 

[Chinese](#) 

[Korean](#) 

[Punjabi](#) 

Waste Education

RETURN TO DEPOT OR RETAILER

RECYCLING COUNCIL OF BC'S RECYCLEPEDIA
www.Recyclepedia.ca

Finding your closest recycling location is easy with RCBC's Recyclepedia. Search for almost any item to find a drop off location and also see what other materials are accepted.

METRO VANCOUVER RECYCLES
www.MetroVancouverRecycles.org

Metro Vancouver Recycles maps out facilities where you can donate or recycle your unwanted items. Pins help you find the closest business that accepts your material.



RECYCLING CART WHAT GOES IN

PLASTIC PRODUCTS



PAPER PRODUCTS



METAL CONTAINERS



NOT ACCEPTED IN YOUR RECYCLING CART

FOOD & KITCHEN

- Straws
- Non-paper insulating wraps
- Foil-lined cardboard lids from take-out containers
- Microwavable bowls with metal rims
- Chip or foil bags
- Foil wrap with paper (e.g., wrap for butter, cigarettes)
- Stand-up pouches
- Kitchen plastic wrap or stretch wrap for meat, poultry, fish or cheese
- Blister packs (e.g., plastic or foil protective packaging for chewing gum and pills)

HOUSEHOLD

- Glass bottles and jars
- Ceramic pots
- Lawn edging
- Tarps
- Plastic furniture
- Garden hoses
- String or rope
- Pails larger than 25 litres
- Propane tanks or cylinders
- Steel or plastic paint cans
- Bottles for motor oil or other vehicle lubricants
- Antifreeze products
- Pails for lubricants and oils
- Aerosol cans with any contents remaining
- Coat hangers
- Pots, pans or baking trays
- Metal or plastic toys
- Appliances
- Hardware or other scrap metal
- Wiring, metal cords or extension cords
- Liquid-absorbing pads
- Rubber bands
- Non-paper gift wrap (e.g., foil, ribbons, bows)

PAPER & PACKAGING

- Hardcover or paperback books
- Boxes with wax coatings (e.g., shipping boxes for groceries)
- Foil-lined bags (e.g., bags for cookies)
- Paper towels
- Napkins or tissues
- Padded envelopes
- Musical greeting cards with batteries
- Packaging labelled as biodegradable or compostable

Waste Education



NOT ACCEPTED



HELP REDUCE CONTAMINATION

Placing unacceptable material in the organics cart negatively impacts the quality of the processed compost product and must be removed at the organic waste processing facilities. It's far easier, and less costly, if we all do our part to ensure that we are only placing acceptable materials into the organics cart. Following these steps will help reduce contamination:

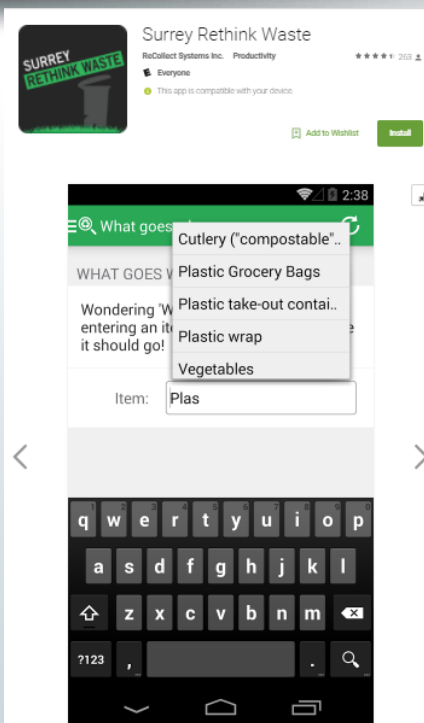
NO PLASTIC Please do not place any plastics (including compostable or biodegradable bags) into organics. When cleaning out your fridge, please remember to remove food from plastic bags, wrap, and styrofoam.

NO ELASTICS Remove elastic bands from bundled vegetables like celery, green onions, and asparagus.

NO DIAPERS, SANITARY PRODUCTS OR PET WASTE

For information on proper disposal of these items, please visit us online at surrey.ca/rethinkwaste.

Waste Education



Garbage and recycling schedules and reminders for the City of Surrey. View your garbage and recycling schedule and receive waste collection reminders all from within this app.



Examples of Surrey/Dillon projects to reduce contamination



Curbside Recycling Audits - Method

- Visual audits of contamination in single family recycling carts
- Carts with contamination were tagged and types of contamination were recorded
- Completed over a 6-week period (3 recycling collections) on 50 routes



RECYCLING CART CONTAMINATION NOTICE

Notice #



Dear Resident,

This notice is to advise that your Recycling Cart (Blue) was found to contain materials that are not permitted for disposal in your Recycling Cart. Unacceptable materials negatively impact the recycling process as they must be removed at the recycling processing facility. This additional step results in financial penalties which may impact waste collection service utility costs. It's far easier, and less costly, if we all do our part to ensure that we are only placing acceptable materials into the recycling cart.

Please note that the City will continue to monitor this issue and non-compliance to these requirements will result in your cart not being serviced on your collection day.



LOOSE RECYCLING

NO GARBAGE OR ORGANICS

NO STYROFOAM, GLASS
OR PLASTIC BAGS
(ACCEPTED AT RECYCLING DEPOT)NO ELECTRONICS
(ACCEPTED AT RECYCLING DEPOT)

NO HAZARDOUS WASTE

NO HARD/SOFT COVER BOOKS
NO CERAMICS

Unacceptable item:

If you have any questions, please contact the City of Surrey Waste Collection Hotline at 604-590-7289 or visit our website at www.surrey.ca/rethinkwaste.

Thank you for your cooperation!

WWW.SURREY.CA/RETHINKWASTE



RECYCLING CART CONTAMINATION NOTICE

Notice #



Dear Resident,

This notice is to advise you that unacceptable materials have been found in your recycling cart on a number of occasions.

You have been previously advised that these contents are considered contamination and are not permitted in your recycling cart. Unfortunately, non-compliance to these requirements has resulted in your cart not being serviced during collection services this week.

To ensure that your cart is serviced next recycling collection week, please remove the contaminated material from your cart.

This notice contains information that affects you. Please have someone translate it for you.

Cet avis contient des informations qui vous concernent. Veuillez SVP demander à quelqu'un de vous le traduire.

이 문서는 본인에게 영향을 미치는 정보를 담고 있습니다. 한국어로 번역을 부탁하시기 바랍니다.

Ang abiso na ito ay may impormasyon na makaka-apekto sa iyo. Ipaki-usap sa ibang tao na isalin sa ibang wika ito.

इस नोटिस में महत्वपूर्ण जानकारी है जो आपको प्रभावित करती है। कृपया किसी से इसका अनुवाद करवा लें।

ਇਸ ਨੋਟਿਸ ਵਿਚ ਅਜਿਹੀ ਜਾਣਕਾਰੀ ਹੈ ਜਿਹੜੀ ਤੁਹਾਡੇ 'ਤੇ ਅਸਰ ਪਾਉਂਦੀ ਹੈ। ਕਿਰਪਾ ਕਰਕੇ ਇਸ ਨੂੰ ਇਸ ਦਾ ਭਾਸ਼ਾਨ ਕਰਵਾਓ।

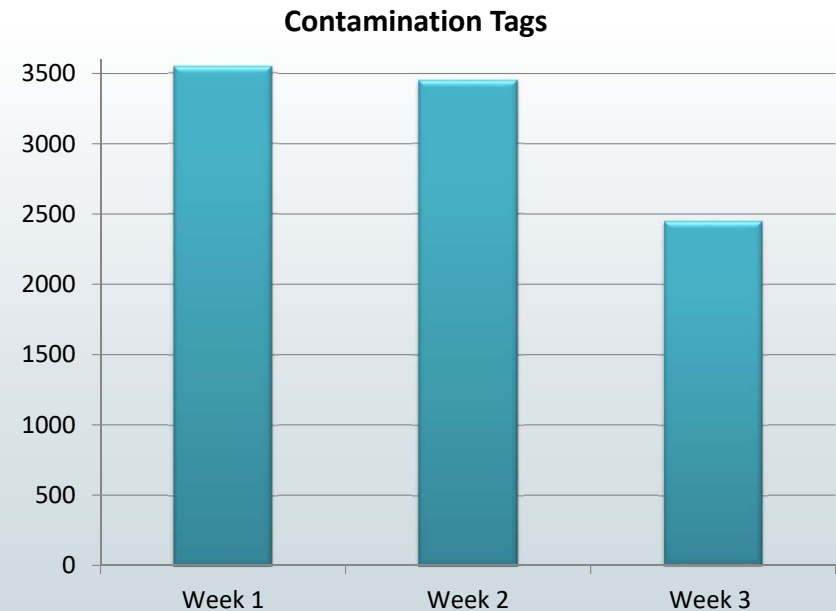
此通告含有可能影響您的重要資料。請找人為您翻譯。

WWW.SURREY.CA/RETHINKWASTE

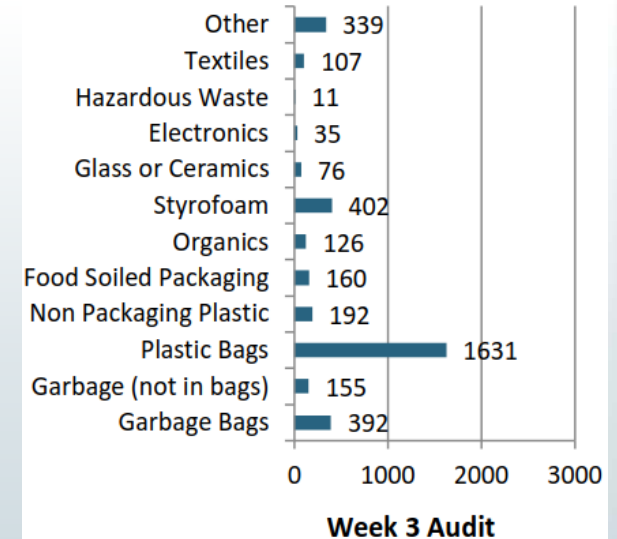
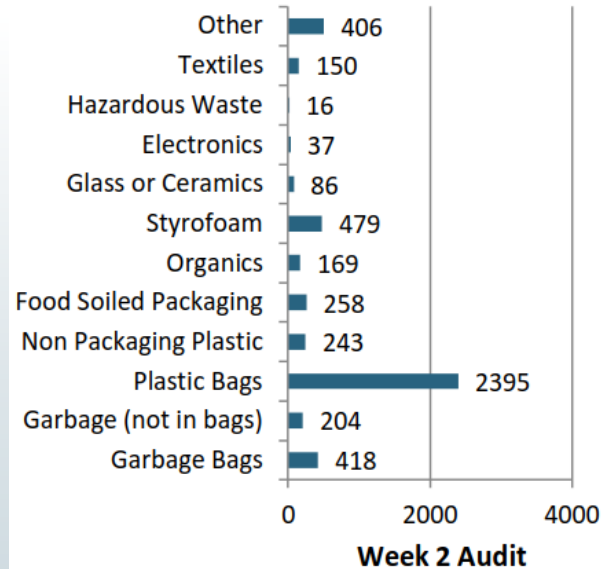
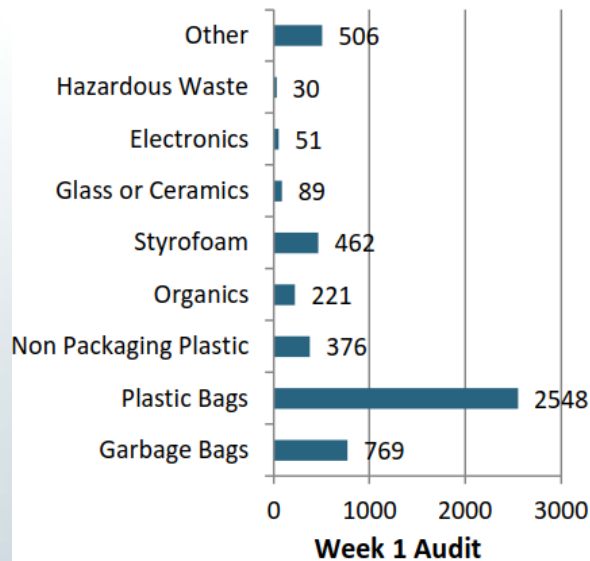


Curbside Recycling Audits - Results

- **Number of tags issued per route:**
 - Week 1: 19 to 164 (average 71)
 - Week 2: 9 to 185 (average 69)
 - Week 3: 6 to 139 (average 49)
- **850 households received tags twice and 90 households received tags three times**



Curbside Recycling Audits – Common Contaminants



Multi-Residential Program

Project Green Suites

- 1-year pilot program to see if behavioural change can be achieved in 15 multi-residential buildings



Objective:

Can the utilization of local Ambassadors equipped with training, communication tools, and support from the Dillon project team address the difficulties associated with the adoption of sustainable initiatives in multi-unit residential buildings?

Project Green Suites

- Ambassador = resident volunteer to assist with implementing and educating tenants
- Measuring success:
 - Ambassador participation
 - Building community buy-in; and
 - Trend towards behavioural change in any one of the three aspects of sustainability
- Program developed using principles of CBSM



Community-Based Social Marketing



- **What is CBSM?**
 - A set of tools drawn from social psychology
 - Used to bring about a behavioural change within a community
 - Uses creative communication strategies

Project Green Suites – Waste Pilot

- Baseline Waste Audit
- Implementation of the Waste Reduction Component

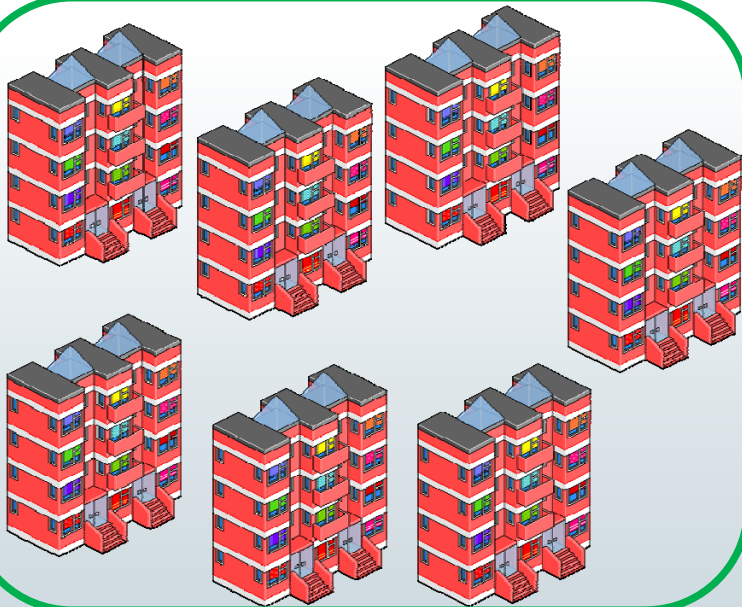


Project Green Suites – Waste Pilot

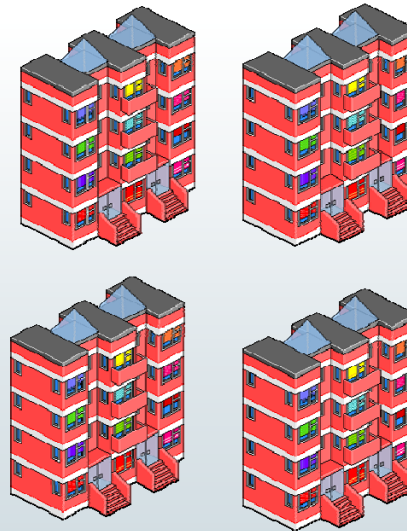
- Ambassadors initiated an organics collection program with help of City and Dillon
- Ambassadors went door-to-door or set up central location for residents to pick up kitchen catchers and information



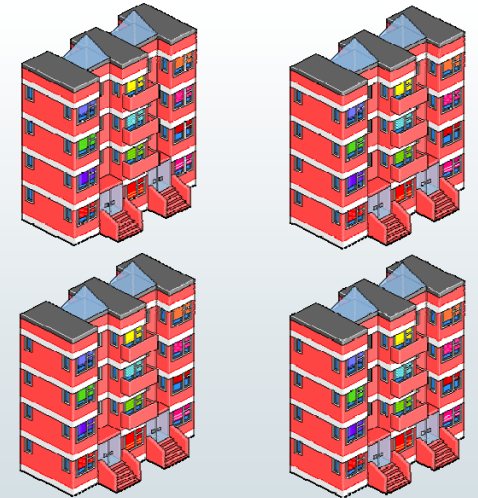
Project Green Suites – Waste Pilot



Successful



Moderately Successful



Unsuccessful

Project Green Suites – Waste Pilot

- **Most influential factors:**
 - Enthusiastic, able Ambassador
 - Supportive building management and/or strata council



Up to 25% diversion of organic waste achieved!

Project Green Suites – Waste Pilot

- Contamination in organics carts varied among buildings
- Contamination Ranges:
 - 1.5% - 2% at buildings with highly active Ambassadors, strata council, and property managers;
 - 2% - 5% at buildings with moderate to low active Ambassadors, strata council, and property manager.

Questions?

Betsy Varghese
bvarghese@dillon.ca

