



Session #601: Green People, Green Housing

Presented by: Natalia Snajdr, Sustainability Facilitator
Centretown Citizens Ottawa Corporation

With grant funding from
the Ontario Trillium Foundation

Ontario
Trillium Foundation



Fondation Trillium
de l'Ontario

An agency of the Government of Ontario
Un organisme du gouvernement de l'Ontario



ONPHA

History of CCOC

“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.”

Margaret Mead

Greening at CCOC - then

1980's



2015



Greening at CCOC - now



HAZARDOUS WASTE DIVERSION



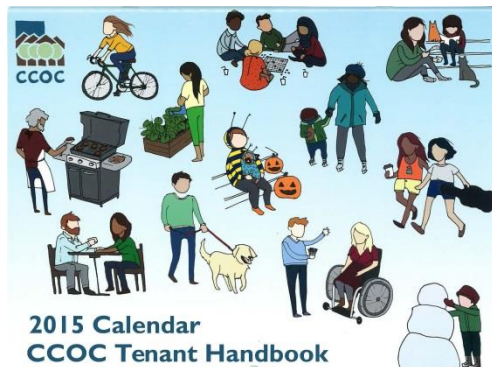
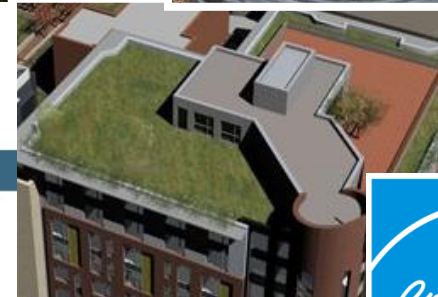
Hazardous waste pollutes landfills and water. Thank you for keeping our building and our environment safe by using these blue containers. Questions? Call 613-234-4065 ext. 243.

What's e-waste?

Electronic waste, often made of steel, glass, copper, aluminum, plastics, and precious metals.

What's household hazardous waste?

Anything corrosive, flammable, or poisonous.



2015 Calendar
CCOC Tenant Handbook



Sustainability programming

It really is all
about the
people!



How do we get tenants' attention?



And WHY is it important?

Tools of Engagement

- Communications materials
- Community based social marketing*
- Direct outreach: person to person*
- Green team - staff & tenant
- Gamification*

Tool: community based social marketing (CBSM)

- It is positive peer pressure

Benefits of CBSM:

Builds new
acceptable
social norms



Tool: person to person outreach

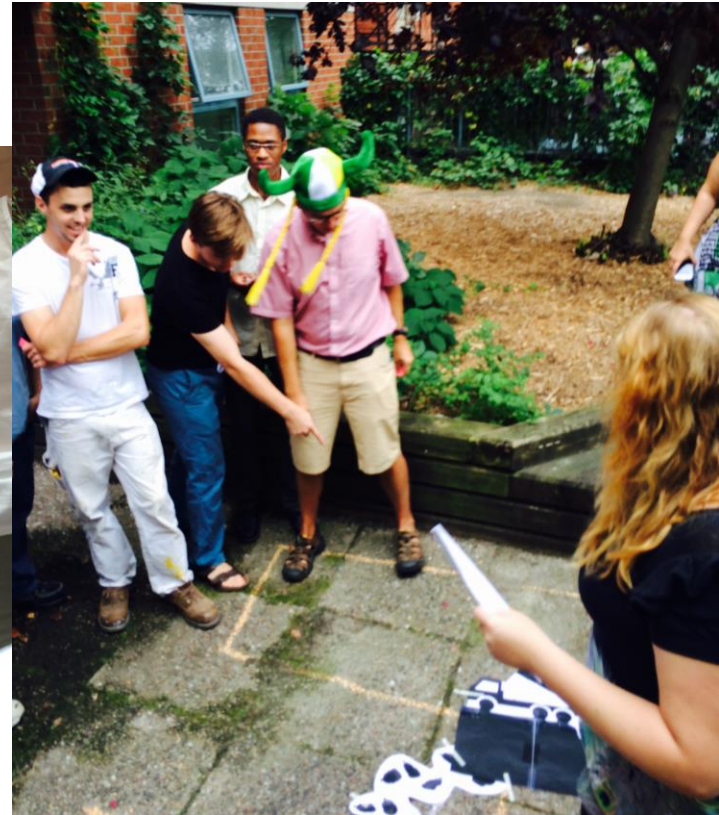
Perry Freda: CCOC Maintenance Supervisor - Tenant Services

“I have been working with CCOC for almost 34 years...I always recycled my paper and recyclables, but never gave it much thought. CCOC hired an employee to look at our green commitments and at that point we started getting tenants involved and it moved to a whole different level. I know personally I recycle much more now than I did a few years ago ... and I know there has been a big change in our tenants as well; all for the better.”



Tools: gamification

trees & dump trucks



What is the “green” tenant experience?

- Hear about us
- Custodian
- Rental Officer
- Lease signing – Green Commitment
- Outreach and communications material
- Personalized Green Commitment Report Card



History of our Green Commitments



My Personal Green Commitments



I, _____, agree to commit to:
(Print Name)

Check off all that apply

Energy – Reduce energy consumption:

- ☐ Use energy efficient lighting, and turn off lights when not in use.
- ☐ Set your thermostat to target temperatures: 21°C when home, 16°C when sleeping or not at home.
- ☐ Wash clothes in cold water.
- ☐ Line dry clothes.
- ☐ Use microwave/toaster/electric kettle to heat small meals or boil water.
- ☐ Use power saving setting on my computer.
- ☐ Plug electronics into a power bar, and turn off electronics when not in use.

Waste – Minimize unnecessary waste:

- ☐ Recycle all paper, plastic, metal & glass.
- ☐ Choose items with less packaging or recyclable packaging.
- ☐ Choose items of durable quality.
- ☐ Compost organic waste or use green bins.
- ☐ Safely dispose of hazardous waste - use Ottawa's "Take it back!" program.

Water – Cut back on water use:

- ☐ Don't use my toilet as a trash can.
- ☐ Take showers instead of baths.
- ☐ Keep showers under 10 minutes long.
- ☐ Fill sink or basin with water to do dishes rather than letting the tap run.

Food – Decrease the environmental impact of my food:

- ☐ Grow my own food – use my window sill, balcony, rooftop garden or community garden.
- ☐ Choose local food – check out food markets.
- ☐ Buy organic and fair trade food when available.

Transportation – Improve the sustainability of my transportation:

- ☐ Walk or bike to get around.
- ☐ Use public transportation for short distance trips.
- ☐ Join VRTUcar (a car sharing program with many cars throughout Ottawa).
- ☐ Don't let my car idle – shut off my car engine after 10 seconds of not driving.

Health – Maintain a healthy environment:

- ☐ Use environmentally friendly cleaning products, or homemade alternatives (ex. baking powder, vinegar).
- ☐ Choose non-toxic personal care products.
- ☐ Avoid dryer sheets. They are full of harmful chemicals.
- ☐ Return expired medications to the pharmacy – don't throw them in the trash.

Community – Support a diverse, engaged, sustainable community:

- ☐ Help CCOC track how we are doing (participate in surveys and share information).
- ☐ Join committees.
- ☐ Come to community events.
- ☐ Get involved in green initiatives with staff and tenants.

Signature _____

Date _____

Apt. # / Address _____

E-mail _____

The Trillium Project

Develop:

Metrics to measure the impacts
of each action



Report card for each household,
building and for CCOC as a whole



A tool that can easily be shared
with other housing providers



Shawn Shi & Vera Hu



What **actions** should we ask tenants to take to reduce their environmental impacts?



Screening the slate of actions

- **Penetration:**
Is the action something that most tenants do already?

+

- **Applicability:**
Is the action something that is relevant to tenants?

+

- **Probability:**
How likely is it that a tenant will take the action?

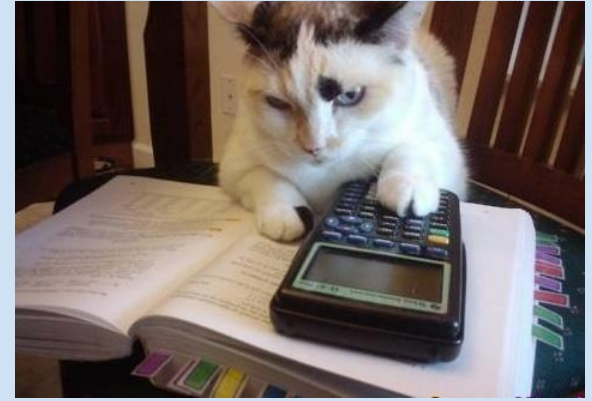
=

- **Impact:**
How big is the positive impact of the action on the environment?

Predicting Probability

The math-y part...

- Multiplying all the coefficients tells us the predicted probability of an action



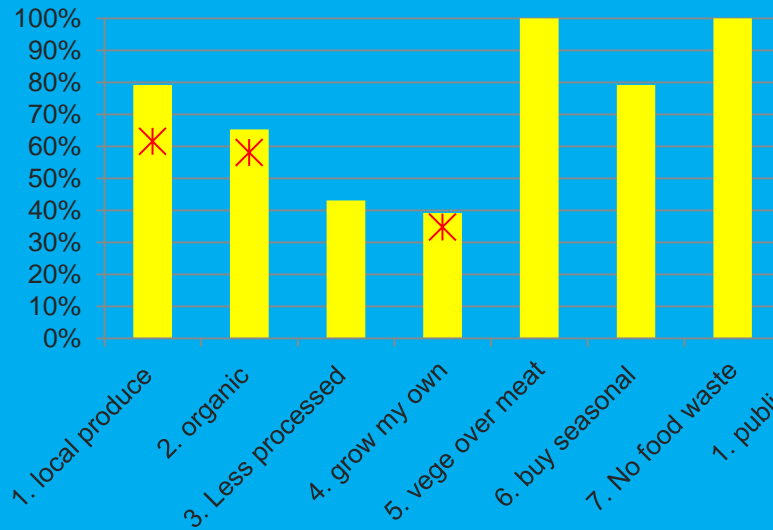
Eg Grow my own food

- Applicability: 1
- Barriers: Knowledge 0.66, Effort 0.33, Cost 1
- Incentives: Saving 1.2, Health 1.5

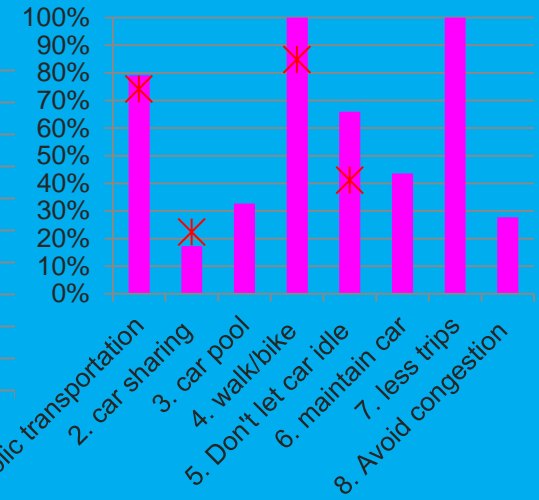
Predicted Probability = $1 \times 0.66 \times 0.33 \times 1 \times 1.2 \times 1.5 = 39.5\%$

Validating the Predicted Probability

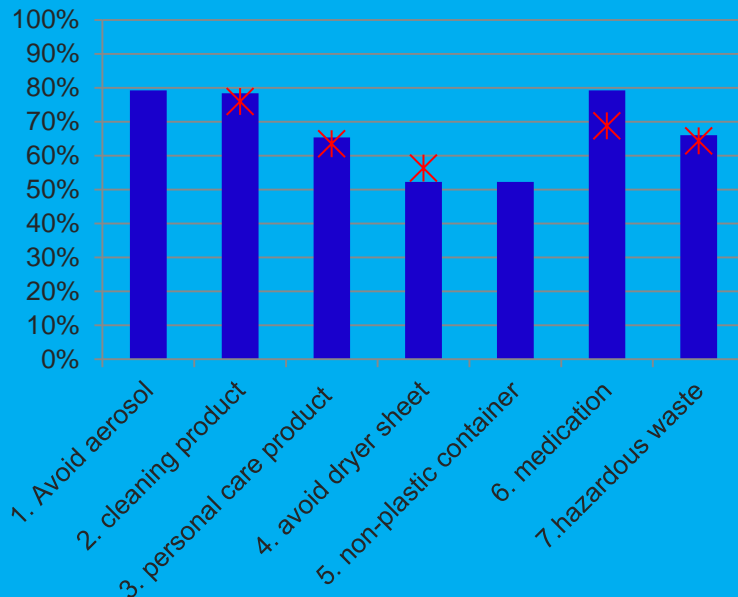
Food



Transportation



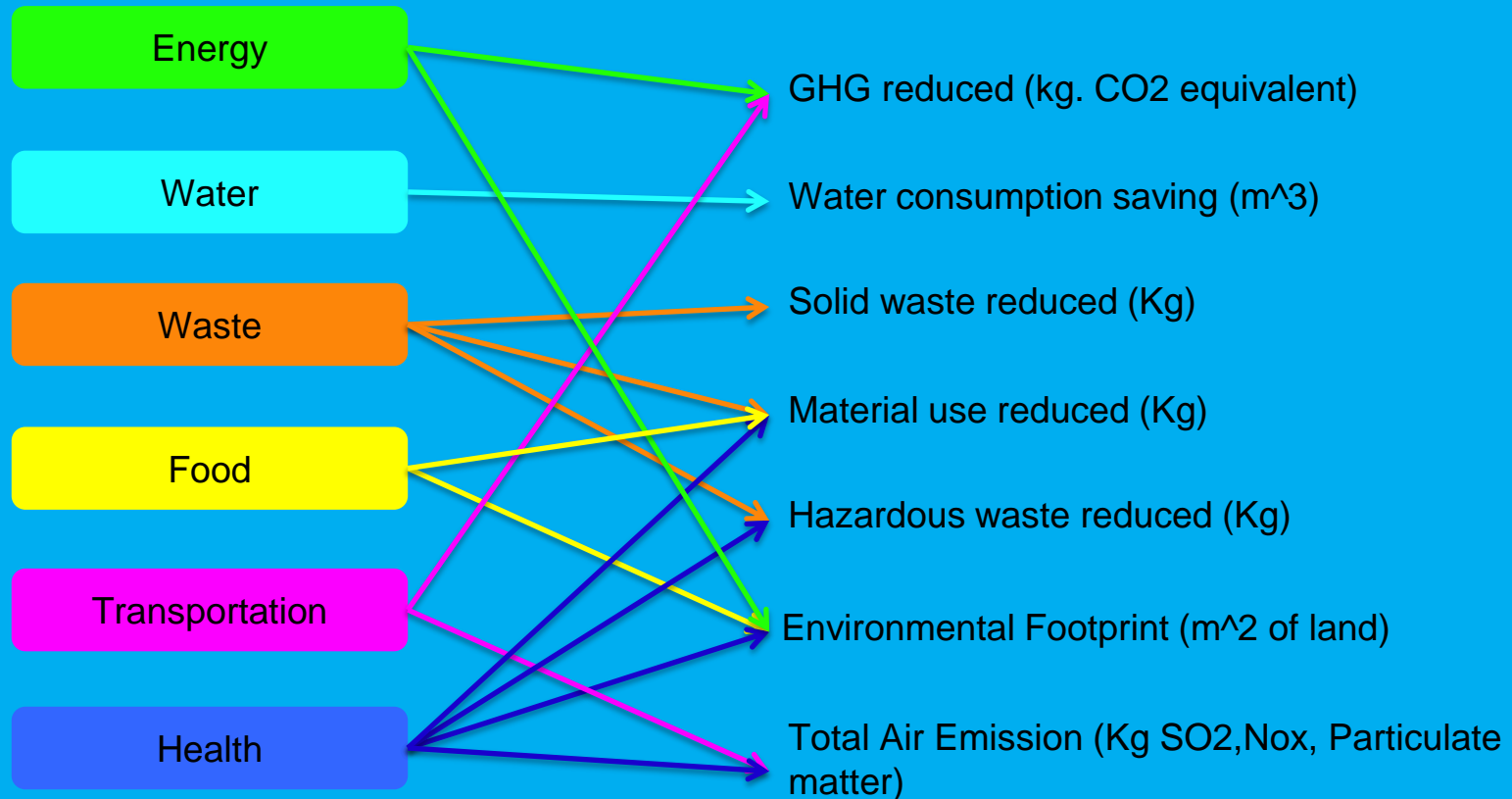
Chemical & Toxin



In general, the predicted probability is a good indicator of the actual probability!

* The pledges from the 1st green commitment

Screening – Impact



Tenant pledge card

Use less electricity



- ☐ Use a kettle, microwave or toaster instead of the stove and oven.
- ☐ Use the right sized burner, pot and lid when you use the stove.
- ☐ Turn the lights off when you leave the room.
- ☐ Unplug appliances and chargers when not in use. If you use a power bar, switch it off when not in use.

Use less energy



- ☐ Add a layer of clothing instead of turning up the heat in winter.
- ☐ In winter, keep windows closed, but open curtains for heat from sunlight.
- ☐ Turn down your thermostat in the winter when you're sleeping or not at home.
- ☐ In summer evenings, open windows instead of using an air conditioner. Close windows and curtains during the day to keep out the heat.

Use less water



- ☐ Only wash clothes when you have a full load of laundry.
- ☐ Take short showers instead of baths.
- ☐ Fill the sink to do dishes instead of washing them under a running tap.
- ☐ Turn off the tap while brushing your teeth, shaving and washing.

Send less to landfill



- ☐ Recycle everything you can - paper, plastic, metal and glass.
- ☐ Use the green bin or composter.
- ☐ Use reusable containers and cutlery. Don't use styrofoam packaging.
- ☐ Bring your own grocery bags. Say NO to plastic bags whenever possible.

Eat greener



- ☐ Eat less meat to lower the environmental impact of your food.
- ☐ Plan your meals and buy only what you need. Don't waste food.
- ☐ Buy local seasonal food when you can.
- ☐ Grow your own food on balconies, in planters, yards, or a community garden.

Use less chemicals



- ☐ Use environmentally friendly cleaning and laundry products.
- ☐ Use non-toxic soaps, shampoos, deodorant and make up.
- ☐ Avoid buying products in aerosol cans such as hairspray and air fresheners.
- ☐ Use CCOC's e-waste and hazardous waste program.

Use less fuel



- ☐ Walk or bike to get around.
- ☐ Take the bus.
- ☐ Join a car sharing program or carpool.
- ☐ Don't let your car idle - shut off the engine after 10 seconds.

Create a community



- ☐ Get involved in green activities at your building.
- ☐ Get to know 5 neighbours.
- ☐ Volunteer with CCOC or join your community association.
- ☐ Support community events.

Do your own thing



Share your green tips with us!

- ☐
- ☐
- ☐
- ☐



____ # pledges

MYGREEN COMMITMENT

Please check off your pledges and sign below.

I, _____
(Print Name)

commit to making these green changes to my lifestyle for the coming year.

☐ I will post this form in my home somewhere I can see it everyday (like on a door or the refrigerator)

☐ Contact me - I have questions about my green commitments.

Signature: _____

Date: _____

Address: _____

Apt#: _____

Phone: _____

E-mail: _____

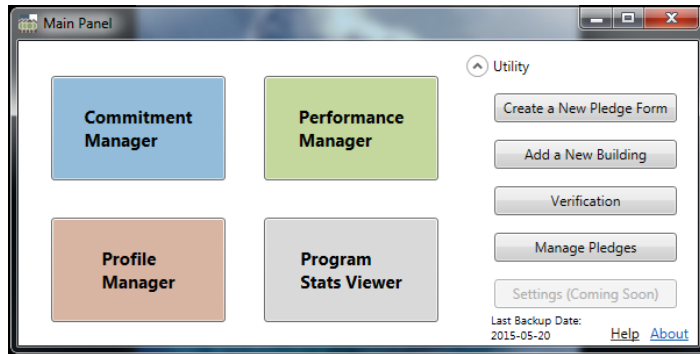
For more information, contact
CCOC's Sustainability Facilitator at
613-234-4065 ext 243.



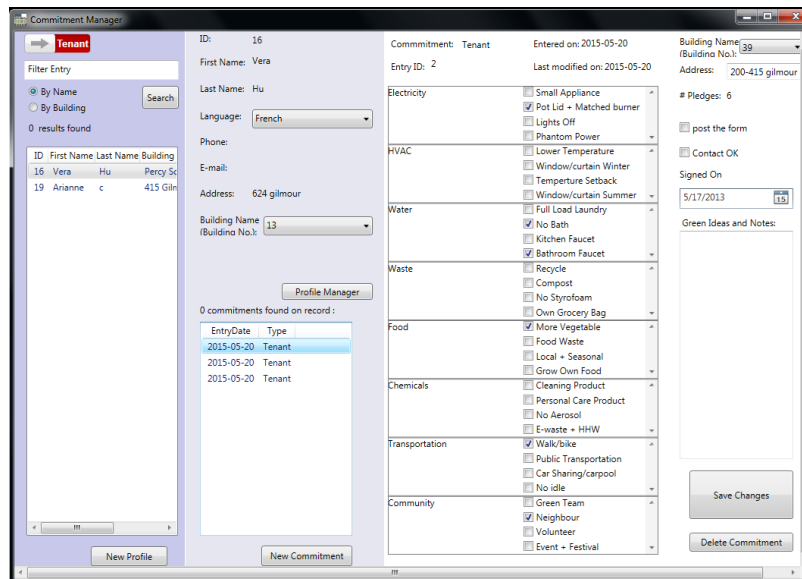
**Centretown Citizens
Ottawa Corporation**

Software we developed

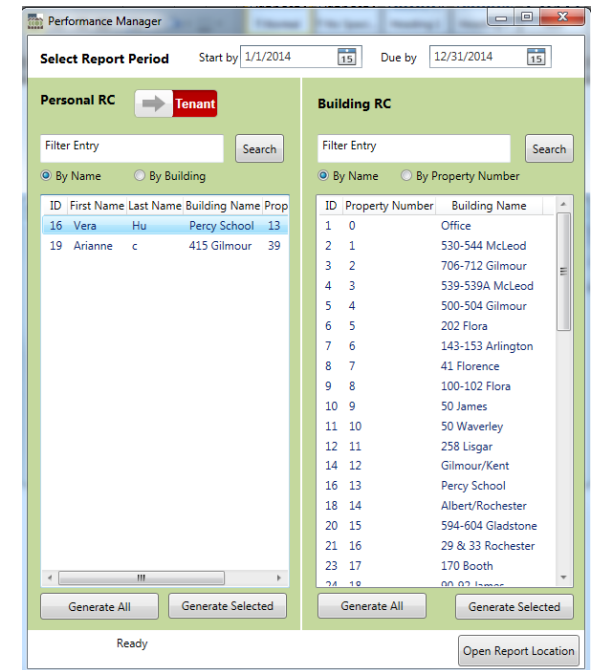
1. Main Panel



2. Commitment Manager



3. Performance Manager



Statistics viewer

Statistics Tool

Select Report Year 2014

| ID | Property Number | Building Name |
|----|-----------------|--------------------|
| 35 | 27 | 520 Bronson |
| 36 | 28 | 341 Lyon |
| 38 | 29 | 283 Arlington |
| 39 | 30 | 212-216 Carruthers |
| 40 | 31 | 287-293 Loretta |
| 42 | 32 | 82-84 Putman |
| 43 | 33 | 147 Hinchey |
| 44 | 34 | 264 Lisgar |
| 45 | 35 | 10 Stevens |
| 46 | 36 | 258 Argyle |
| 47 | 37 | 145 Clarence |
| 48 | 38 | 511 Bronson |
| 49 | 39 | 415 Gilmour |
| 50 | 40 | 151 Parkdale |
| 51 | 41 | 455 Lisgar |
| 52 | 52 | 163 James |
| 53 | 58 | 143-145 Eccles |
| 54 | 60 | 140 Bronson |

Building Statistics Aggregate Statistics

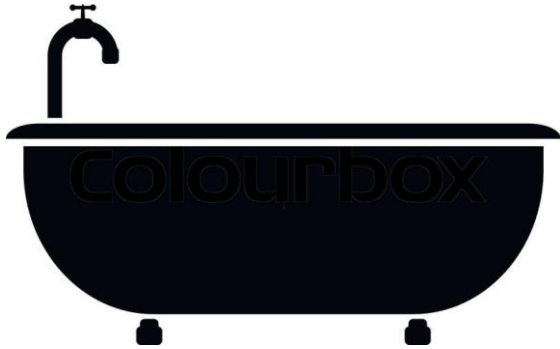
| Number | Heading | Value |
|--------|--------------------------------|-------------|
| 1.1 | Building Name | 415 Gilmour |
| 1.2 | Property Number | 39 |
| 1.3 | Neighbourhood | Centretown |
| 1.4 | Number of Units | 91 |
| 1.5 | Building Type | Apartment |
| 2.1 | Total Commitments | 4 |
| 2.2 | Accumulated Commitments | 5 |
| 2.3 | Participation Rate % | 4.4 |
| 2.4 | Increase Participation % | 400 |
| 3.1 | Renew Rate % | 100 |
| 4.1 | Renew Count | 1 |
| 4.4 | New Commitment Count | 3 |
| 5.1 | Total Pledges | 30 |
| 5.1 | Accumulated Pledges | 35 |
| 6.1 | Total Energy Saving | 21977.13 |
| 6.2 | Total CO2 Reduction | 3158.06 |
| 6.3 | Total Water Reduction | 89799.17 |
| 6.4 | Total Waste Reduction | 140 |
| 6.5 | Accumulated Energy Saving | 25112.77 |
| 6.6 | Accumulated CO2 Reduction | 3802.05 |
| 6.7 | Accumulated Water Reduction | 130252.59 |
| 6.8 | Accumulated Waste Reduction | 140 |
| 7.1 | Average Commitment Score | 39.3 |
| 7.2 | A+ Percentage % | |
| 7.3 | A Percentage % | |
| 7.4 | A- Percentage % | |
| 7.5 | B+ Percentage % | 25 |
| 7.6 | B Percentage % | 25 |
| 7.7 | B- Percentage % | 50 |
| 7.8 | Building Average Score | 1.73 |
| 7.8 | Score Increase % | 517.7 |
| 8.1 | Total Number of Verifications | 2 |
| 8.2 | Verification Rate % | 2.2 |
| 8.3 | Verification Increase % | Infinity |
| 9.1 | Total Number of Qualifications | |
| 9.2 | Qualification Rate % | |
| 9.3 | Qualification Increase % | NaN |

Export To CSV

**How will we
measure the
impact of each
action?**



Sample Metric Calculation



VS.



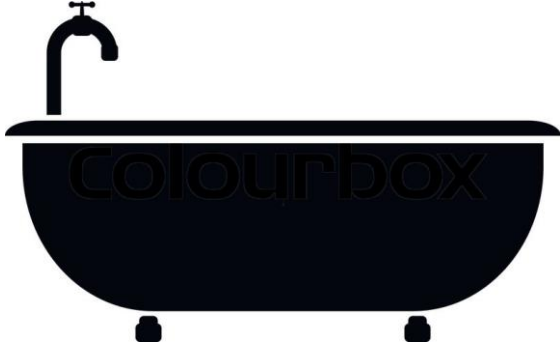
Action: Take a shower instead of a bath

Step One: Define the state A (before the behaviour change) and state B (after the behaviour change)

State A: Take 5 showers and 2 baths per week

State B: Take 7 showers per week

Calculations: Water



An average (half-full) bath consumes **120 liters** of water

State A



State B



An average 8-minute shower using low-flow showerhead consumes **75 liters** of water

Source: Wise Water Use, Environment Canada
<https://www.ec.gc.ca/eau-water/default.asp?lang=En&n=F25C70EC-1#s4>

Water Savings:
4,680 Liters

Now we need to calculate:

Energy saving
+
CO₂ Emission Reductions
=
Total reductions impact from that 1 action over the course of 1 year

What do the numbers mean?

How much is 4,680L?

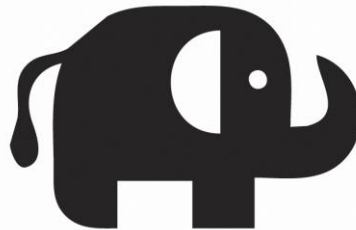
Can you imagine how much water that is?



Water saving:
4680 Liters














Energy saving:
234 kWh



Emission
reduction: **42 kg**

Tenant sign this...pledge form

| | | | |
|---|---|---|--|
| Use less electricity  <ul style="list-style-type: none"><input type="checkbox"/> Use a kettle, microwave or toaster instead of the stove and oven.<input type="checkbox"/> Use the right sized burner, pot and lid when you use the stove.<input type="checkbox"/> Turn the lights off when you leave the room.<input type="checkbox"/> Unplug appliances and chargers when not in use. If you use a power bar, switch it off when not in use. | Use less energy  <ul style="list-style-type: none"><input type="checkbox"/> Add a layer of clothing instead of turning up the heat in winter.<input type="checkbox"/> In winter, keep windows closed, but open curtains for heat from sunlight.<input type="checkbox"/> Turn down your thermostat in the winter when you're sleeping or not at home.<input type="checkbox"/> In summer evenings, open windows instead of using an air conditioner. Close windows and curtains during the day to keep out the heat. | Use less water  <ul style="list-style-type: none"><input type="checkbox"/> Only wash clothes when you have a full load of laundry.<input type="checkbox"/> Take short showers instead of baths.<input type="checkbox"/> Fill the sink to do dishes instead of washing them under a running tap.<input type="checkbox"/> Turn off the tap while brushing your teeth, shaving and washing. | <div><div> MYGREEN COMMITMENT</div><div><div># pledges</div><div>Please check off your pledges and sign below.</div><div>I, _____ (Print Name)</div><div>commit to making these green changes to my lifestyle for the coming year.</div><div><input type="checkbox"/> I will post this form in my home somewhere I can see it everyday (like on a door or the refrigerator)</div><div><input type="checkbox"/> Contact me - I have questions about my green commitments.</div><div>Signature: _____</div><div>Date: _____</div><div>Address: _____</div><div>Apt#: _____</div><div>Phone: _____</div><div>E-mail: _____</div><div>For more information, contact CCOC's Sustainability Facilitator at 613-234-4065 ext 243.</div><div> Centretown Citizens Ottawa Corporation</div></div></div> |
| Send less to landfill  <ul style="list-style-type: none"><input type="checkbox"/> Recycle everything you can - paper, plastic, metal and glass.<input type="checkbox"/> Use the green bin or composter.<input type="checkbox"/> Use reusable containers and cutlery. Don't use styrofoam packaging.<input type="checkbox"/> Bring your own grocery bags. Say NO to plastic bags whenever possible. | Eat greener  <ul style="list-style-type: none"><input type="checkbox"/> Eat less meat to lower the environmental impact of your food.<input type="checkbox"/> Plan your meals and buy only what you need. Don't waste food.<input type="checkbox"/> Buy local seasonal food when you can.<input type="checkbox"/> Grow your own food on balconies, in planters, yards, or a community garden. | Use less chemicals  <ul style="list-style-type: none"><input type="checkbox"/> Use environmentally friendly cleaning and laundry products.<input type="checkbox"/> Use non-toxic soaps, shampoos, deodorant and make up.<input type="checkbox"/> Avoid buying products in aerosol cans such as hairspray and air fresheners.<input type="checkbox"/> Use CCOC's e-waste and hazardous waste program. | |
| Use less fuel  <ul style="list-style-type: none"><input type="checkbox"/> Walk or bike to get around.<input type="checkbox"/> Take the bus.<input type="checkbox"/> Join a car sharing program or carpool.<input type="checkbox"/> Don't let your car idle - shut off the engine after 10 seconds. | Create a community  <ul style="list-style-type: none"><input type="checkbox"/> Get involved in green activities at your building.<input type="checkbox"/> Get to know 5 neighbours.<input type="checkbox"/> Volunteer with CCOC or join your community association.<input type="checkbox"/> Support community events. | Do your own thing  <p>Share your green tips with us!</p> <ul style="list-style-type: none"><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/> | |

Tenants receive this...

NEXT STEPS

11a

1

Review your Report Card

Share your achievement with the rest of your household and your neighbours.



2

Renew Your Green Commitment

Fill out the blank commitment form and keep up the good work for another year.



3

Return the coloured copy to CCOC

Use the dropbox in your building or bring it to the CCOC office in person.



4

Act on your pledges now

Join your CCOC neighbours and put your commitment into action.



We believe we can make a difference

CCOC believes that everyone's actions matter. We rely on nature's resources, and we all have an important role to play in reducing our impact on the environment.

Each everyday choice made by tenants, staff and volunteers adds up. Little actions, like turning off the tap while you brush your teeth, make a big difference over a year, especially if the same action is happening in households across CCOC.

Living green is that easy. If we each do our own small part, together we'll make a big impact.

To get more information or share your comments and suggestions, please contact
CCOC's Sustainability Facilitator
at 613-234-4065 ext 243



Your report card is printed on eco-friendly paper.



MY GREEN COMMITMENT

PERSONAL REPORT CARD

Name:

Address:

Year:

SAMPLE
Send in your Green
Commitment pledge form
to get your own report
card next year.



**Centretown Citizens
Ottawa Corporation**

Your actions count!

The **ecological footprint** measures the amount of nature's resources used by a person in a year.

The average Canadian has an ecological footprint of **3.5 Earths**.



But we only have **1 Earth**!



Here's what you could save by making a Green Commitment!

Compared to the average Canadian

Energy Saving

14,650 kWh



Enough energy to light your home for **13 years**

Since **2015** you have saved **20,250 kWh** of energy.

CO₂ Emission Reduction

2,575 kg



The weight of **1 elephant**

Since **2015** you have kept **3,880 kg of CO₂** out of the atmosphere.

Water Saving

27,000 litres



One year of drinking water for **37 people**

Since **2015** you have saved **54,000 litres** of water.

Waste Reduction

180 kg



Enough trash to fill your bathtub **9 times**

Since **2015** you have kept **300 kg** of waste out of landfill.



You are one of **567** CCOC tenants who signed a Green Commitment in the past year.



In the past year, you committed to **24** pledges, compared to the building average of 17 pledges.



You've reduced your environmental impact more than **75%** of your neighbours.

Keep up the great work!
Flip over for next steps.



Building report card



MON MY ENGAGEMENT BUILDING ÉCOLOGIQUE GREEN D'IMMEUBLE COMMITMENT

Excellent travail!

Merci pour faire une différence. Depuis 2015, 123 locataires et personnel de CCOC avaient pris un Engagement Écologique. Chaque choix quotidien contribue. Quand nous faisons notre petite pièce, ensemble nous avons un grand impact.









- Votre immeuble a pris **304** nouveaux engagements cette année.
- C'est un moyen de **17** engagements par domicile!

Voici comment ton immeuble compare à les 5 meilleurs immeubles de CCOC qui avaient signé un document d'engagement écologique.

1. 415 Gilmour - 29 engagements par domicile (624 au total)
2. 264 Lisgar - 27 engagements par domicile (957 au total)
3. 111 Catherine - 25 engagements par domicile (2500 au total)
4. 170 Booth - 20 engagements par domicile (804 au total)
5. 464 Metcalfe - 18 engagements par domicile (1032 au total)

Vous avez classé n° 6 de tous les immeubles de CCOC. Quel défi relèverez-vous dans l'année à venir?



| Économie d'énergie 5435 kWh | Réduction des émissions de CO2 99865 kg | Économie en eau 43543 litres | Réduction des déchets 234232 kg | Energy Saving 5435 kWh | CO2 Emission Reduction 99865 kg | Water Saving 43543 litres | Waste Reduction 234232 kg |
|--|---|--|--|--|---|---|---|
|  Assez d'énergie pour éclairer votre maison pendant 235 années. Depuis 2015 vous avez économisé 748393 kWh of energy. |  Le poids de 86 éléphants. Depuis 2015 vous avez évité l'émission de 4354 kg de CO2 dans l'atmosphère. |  Une année d'eau potable pour 367 personnes. Depuis 2015 vous avez économisé 925435 litres d'eau. |  Assez de déchets pour remplir votre bain 289 fois. Depuis 2015 vous avez économisé 122 kg de déchets d'être emporté au décharge. |  Enough energy to light your home for 235 years. Since 2015 your building has saved 748393 kWh of energy. |  The weight of 86 elephants. Since 2015 your building has kept 4354 kg of CO2 out of the atmosphere. |  One year of drinking water for 367 people. Since 2015 your building has saved 925435 litres of water. |  Enough trash to fill your bathtub 289 times. Since 2015 your building has kept 122 kg of waste out of landfill. |

Great job!

Thanks for making a difference. Since 2015, 123 CCOC tenants and staff have made a Green Commitment. Each everyday choice adds up. When we each do our own small part, together we make a big impact.

- Your building made **304** new pledges this year.
- That's an average of **17** pledges per home!

Here's how your building compares to the Top 5 CCOC buildings with the most Green Commitment pledges.

1. 415 Gilmour - 29 pledges per home (624 total)
2. 264 Lisgar - 27 pledges per home (957 total)
3. 111 Catherine - 25 pledges per home (2500 total)
4. 170 Booth - 20 pledges per home (804 total)
5. 464 Metcalfe - 18 pledges per home (1032 total)

You ranked #6 of all CCOC buildings. How will you do next year?



Next steps

Pledge forms rolled out to tenants and staff this summer – pilot stage

Like school, report cards for tenants and buildings will come out in June

Building a calendar of campaigns based on the categories to keep green actions top of mind throughout the year



Lessons Learned

- * Staff buy-in is important
- * Champions are everywhere (other motivations)
- * Behaviour trumps design
- * Start where you are
- * Gamification, direct outreach & CBSM are effective
- * People matter - It all starts with a simple conversation

Thank you for
sharing the last hour
with me!

Natalia Snajdr
Sustainability Facilitator, CCOC
natalia.snajdr@cchohousing.org