Data Walking and Talking:

The Red Deer Environmental Master Plan

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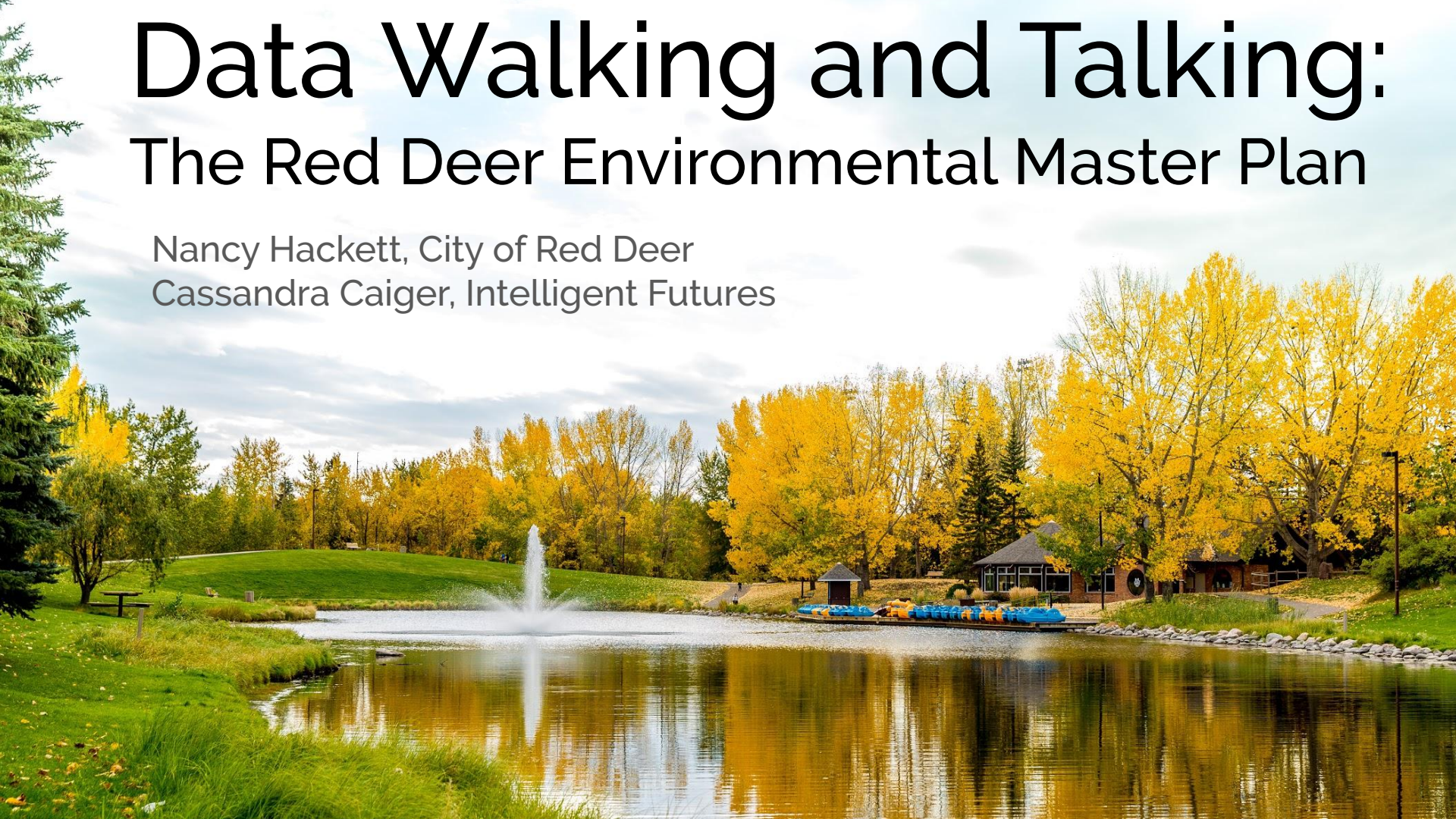

Our agenda

- Introduce the Red Deer Environmental Master Plan (EMP)
- The role of data
- Practice a Data Walk
- Reflections / Questions & Answers

Our goals today

1. Context
Learn about Red Deer & the EMP

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2. New Method
Learn Data Walks

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3. Practice
Experience a Data Walk

Our goals today

1. Context
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2. New Method
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3. Practice
Experience a Data Walk

4. Meet New People
Meet and learn from new people

Our goals today

1. Context
Learn about Red Deer & the EMP

2. New Method
Learn Data Walks

3. Practice
Experience a Data Walk

4. Meet New People
Meet and learn from new people

5. Have fun!

The Red Deer Environmental Master Plan

THE CITY OF
Red Deer

Environmental Master Plan

Our Environment, Our Future

25 year vision for Red Deer's environmental future

Red Deer actively enhances its rich natural environment and minimizes its ecological footprint through City leadership, community collaboration and active stewardship. Red Deer is a leading example of a resilient and sustainable community in which urban and natural systems are effectively integrated to the benefit of both.

7 Focus Areas

WATER

ECOLOGY

AIR

BUILT ENVIRONMENT

TRANSPORTATION

ENERGY

WASTE

Structure of the EMP Today

Goal

Targets

Actions

Structure of the EMP Today

Goal

Targets

Actions

WATER

To improve the quality of our water resources and increase water conservation

Structure of the EMP Today

WATER

Goal

To improve the quality of our water resources and increase water conservation

Targets

By 2020 reduce by 15% from 2009 levels

Actions

Structure of the EMP Today

WATER

Goal

To improve the quality of our water resources and increase water conservation

Targets

By 2020 reduce by 15% from 2009 levels

Actions

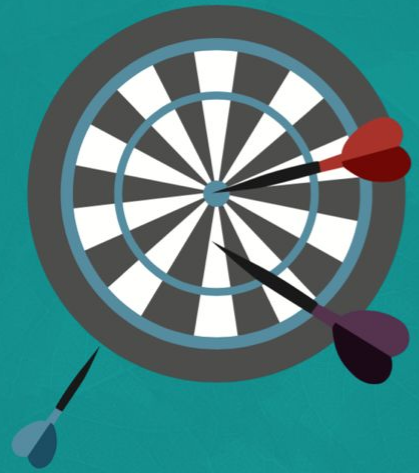
Replace water meters with Advanced Metering Infrastructure (AMI) technology in conjunction with replacement for electrical meters.

Reporting

HITTING OUR TARGETS

19 METRICS

ARE BEING MEASURED TO DEFINE OUR PROGRESS IN MEETING THE EMP GOALS.



ON TARGET

- Potable water consumption
- Natural areas
- Man-made green areas
- Integrated pest management
- Length of trail kilometres per resident
- 'Footprint' of per capita land consumption
- Use of renewable energy

ON THE BOARD

- Fuel consumption per capita
- Modal split
- Community gardens
- Greenhouse gas emissions
- Building energy: average building intensity
- Waste diverted
- Amount of residential solid waste
- Overall per capita disposal rate

TAKING AIM

- Water quality of receiving bodies
- Urban forestry

These targets need more research in order to establish the measurement metrics to determine baselines and set targets.

NEAR MISSES

- Dwelling unit proximity to community amenities. This measures the share of households within 400 metres, comfortable walking distance to common amenities. Distance to transit stops and trails/parks or green space were achieved, however the measure fell short for proximity to commercial sites and schools.
- Air quality is measured by reporting on a group of compounds (ozone, sulphur dioxide, nitrogen dioxide, and carbon monoxide) in the air. Targets for all compounds have been met with the exception of fine particulate matter.

The EMP Refresh

After 5 years, we wanted to...

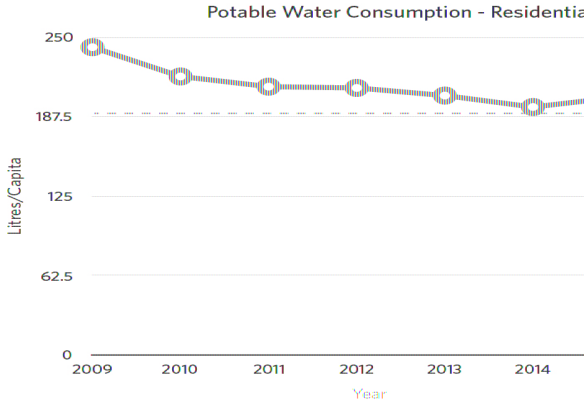
- Maintain our vision
- Review how we're progressing towards our goals and targets and adjust as needed
- Refresh our actions for the next five years (and beyond)

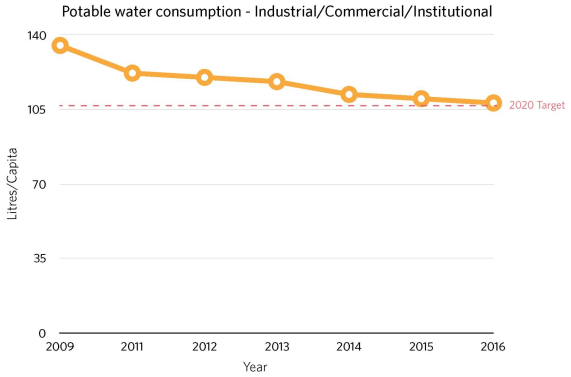
13

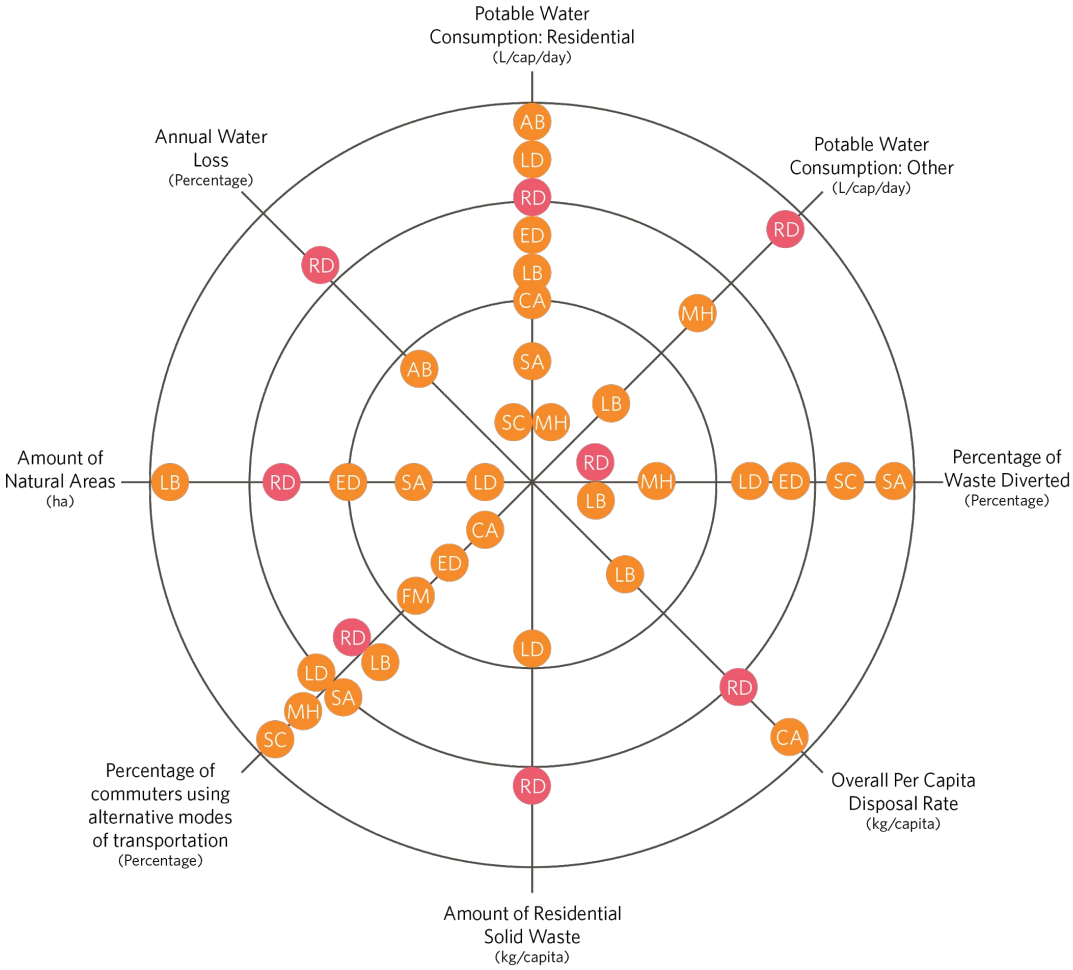
of 20 metrics were trending towards the targets

2

of 20 metrics were trending away from the targets


Potable Water Consumption - Residentia
250
187.5
125
62.5
0
Litres/Capita
2009
2010
2011
2012
2013
2014
Year

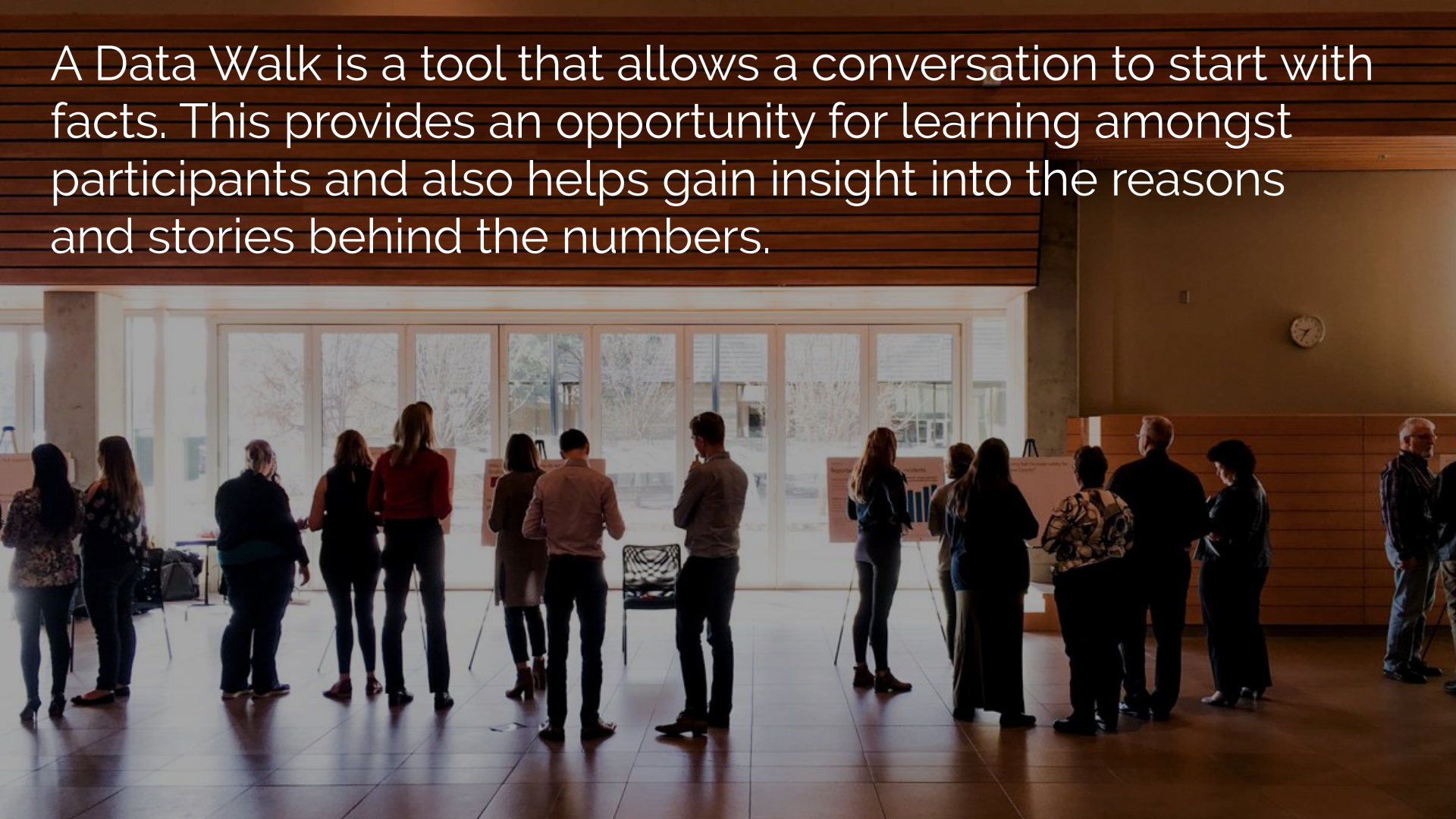

Potable water consumption - Industrial/Commercial/Institutional
140
105
70
35
0
Litres/Capita
2020 Target
2009
2011
2012
2013
2014
2015
2016
Year


Potable Water Consumption: Residential
(L/cap/day)
Potable Water Consumption: Other
(L/cap/day)
Annual Water Loss
(Percentage)
Amount of Natural Areas
(ha)
Percentage of Waste Diverted
(Percentage)
Percentage of commuters using alternative modes of transportation
(Percentage)
Overall Per Capita Disposal Rate
(kg/capita)
Amount of Residential Solid Waste
(kg/capita)
AB
LD
RD
ED
LB
CA
SA
SC
MH
FM

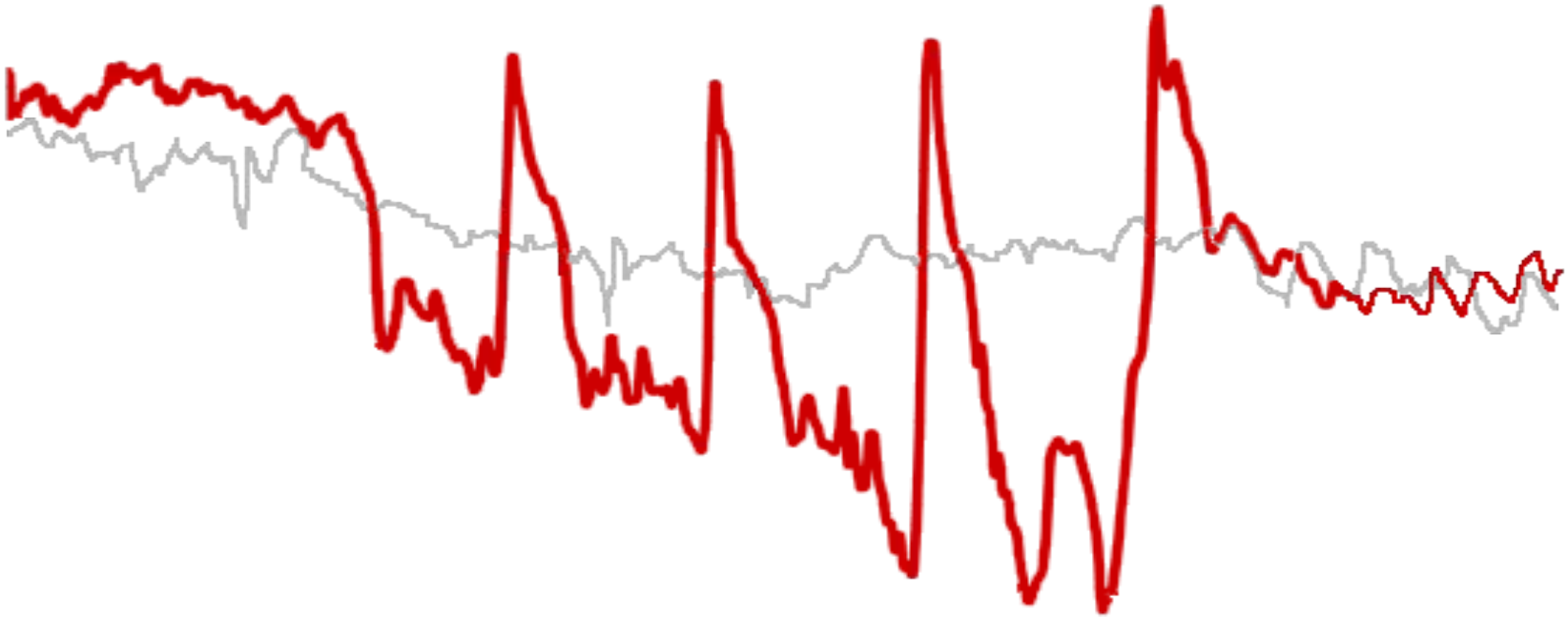
Stay tuned...

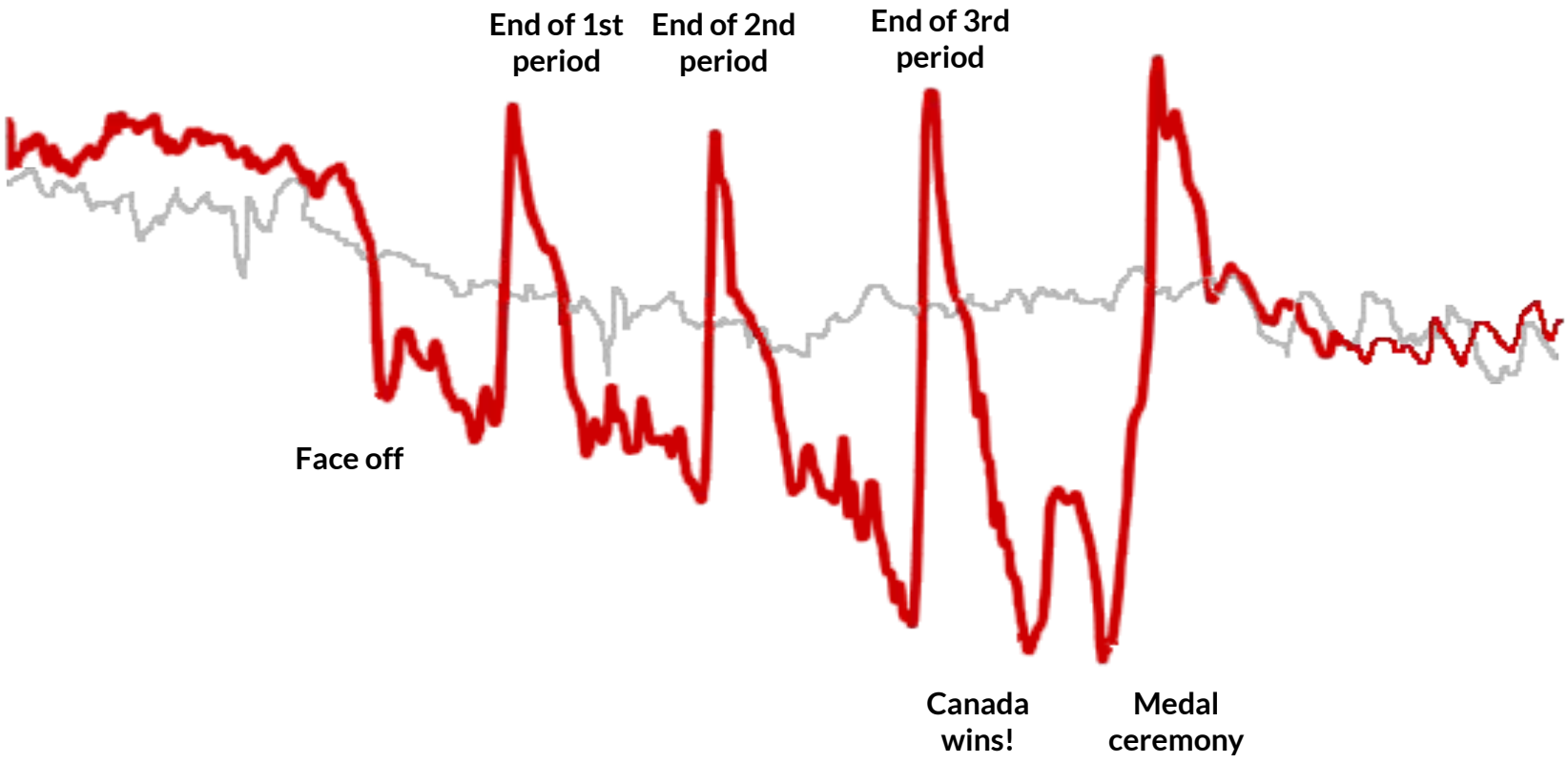
Data Walks

A Data Walk is a tool that allows a conversation to start with facts. This provides an opportunity for learning amongst participants and also helps gain insight into the reasons and stories behind the numbers.

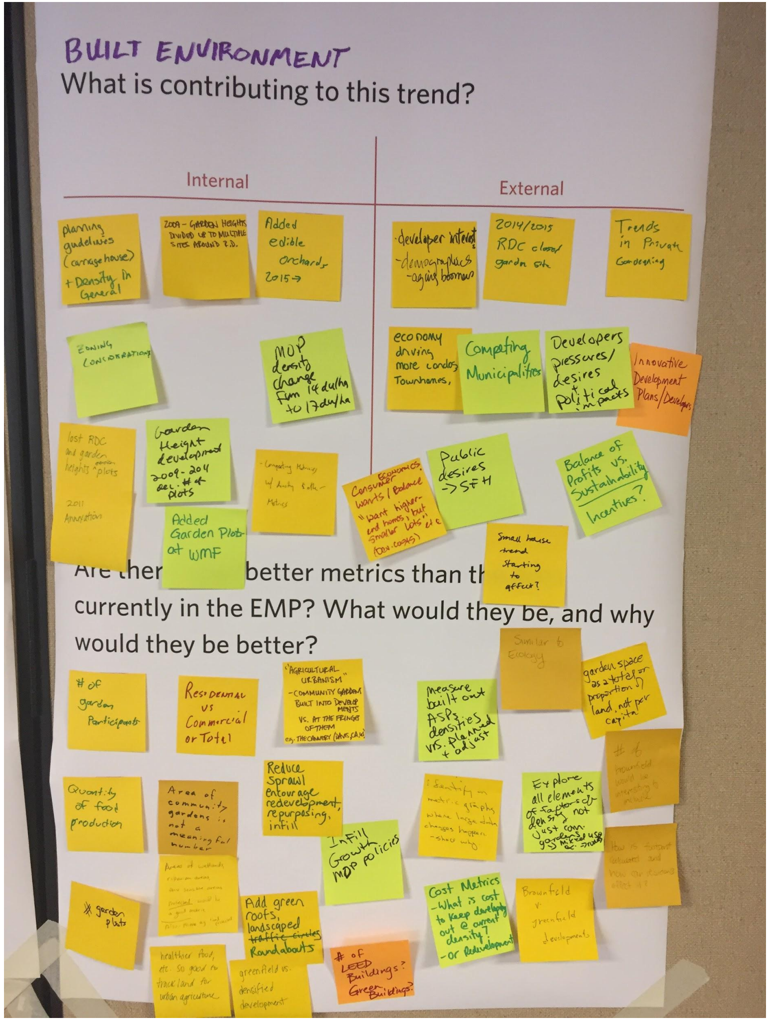
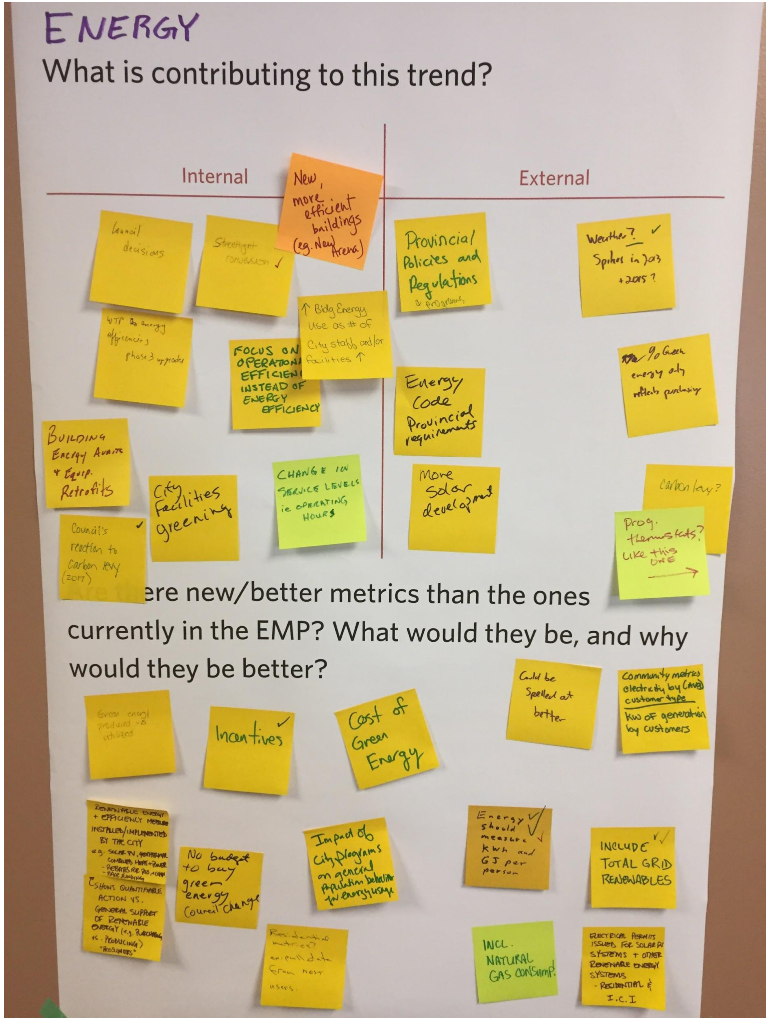


There are stories beneath the numbers.




End of 1st period
End of 2nd period
End of 3rd period
Face off
Canada wins!
Medal ceremony

Data Walks for the Red Deer EMP


BUILT ENVIRONMENT
What is contributing to this trend?
Internal
External
Added edible orchard 2015
Trends in Private Gardening
Competing Municipalities
Developers pressures/ desires political impacts
Innovative Development Plans/Developers
Public desires -> SFH
Balance of Profits vs. Sustainability Incentives?
Added Garden Plots at WMF
Are there new/better metrics than the ones currently in the EMP? What would they be, and why would they be better?
# of garden Participants
Residential vs Commercial or Total
Quantity of food production
Reduce Sprawl Encourage redevelopment, repurposing, infill
Infill Growth MDP policies
Explore all elements of density not just com. gardens
Cost Metrics
Brownfield v. greenfield development
Add green roofs, landscaped traffic circles Roundabouts
# of LEED Buildings? Green Buildings

ENERGY
What is contributing to this trend?
Internal
External
New, more efficient buildings (eg. New Arena)
Provincial Policies and Regulations
Energy Code Provincial requirements
More Solar development
Building Energy Audits + Equip. Retrofits
City Facilities greening
CHANGE IN SERVICE LEVELS ie OPERATING HOURS
FOCUS ON OPERATIONAL EFFICIENCY INSTEAD OF ENERGY EFFICIENCY
Council's reaction to Carbon levy (2017)
Carbon levy?
Are there new/better metrics than the ones currently in the EMP? What would they be, and why would they be better?
Incentives
Cost of Green Energy
Could be Spelled out better
No budget to buy green energy (Council change)
Impact of City programs on general population behavior re energy usage
Energy should measure kwh and GJ per person
INCLUDE TOTAL GRID RENEWABLES
INCL. NATURAL GAS CONSUMP.

Time for you to do a data walk!

For the next 15 minutes...

1. Find a partner to do your data walk with
2. Grab a question sheet
3. Walk around the posters and explore the data and related questions, providing your feedback

Thoughts on your data walk

Closing thoughts & questions

Thank you!

Thank you!

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