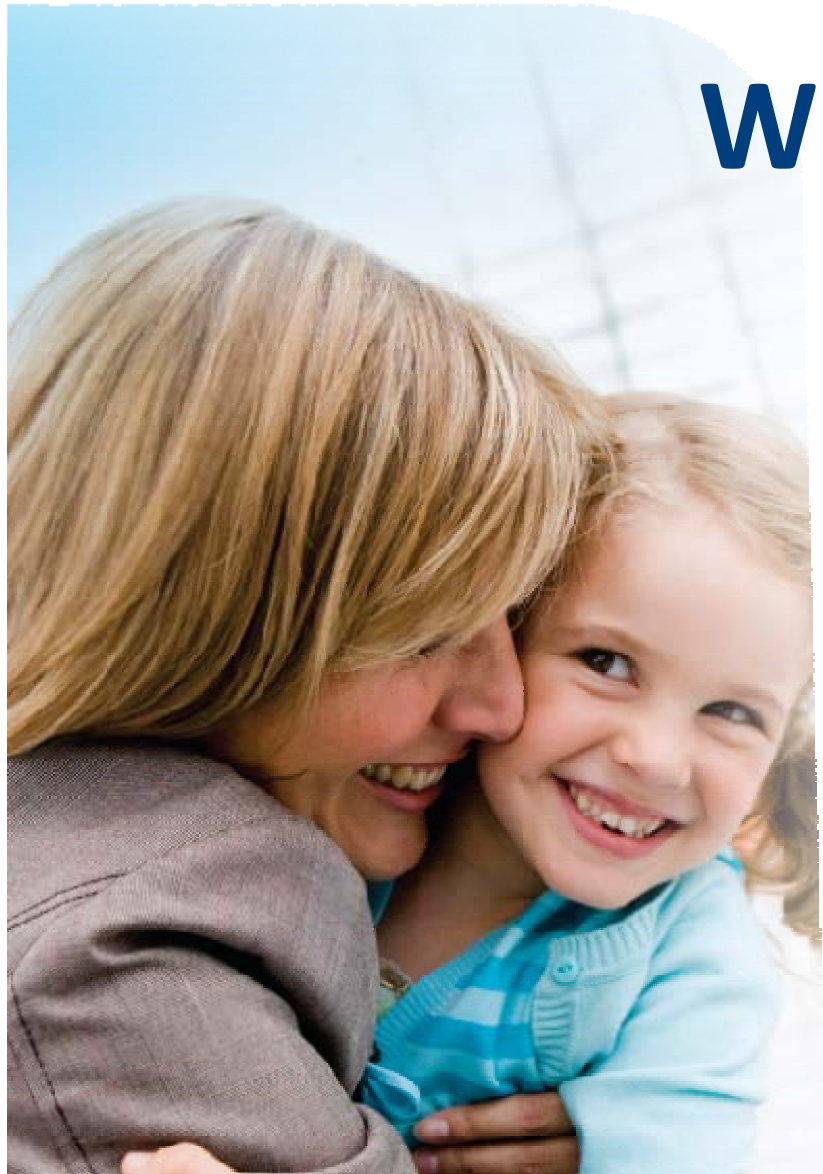


Welcome



Stormwater Management at Toronto Pearson

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For You. The World.



Outline

GTAA and Toronto Pearson

Stormwater Management

Challenges

Closing



GTAA and Toronto Pearson



Greater Toronto Airports Authority

Incorporated March 3, 1993 as a not for profit corporation

- To acquire, operate and develop Toronto Pearson or other airports in South Central Ontario for the “general benefit of the public”
- To use the airports as a means to “expand Ontario’s transportation facilities” and to “generate economic activity” in all areas that can be served by air transportation

Assumed operation of Toronto Pearson on December 2, 1996

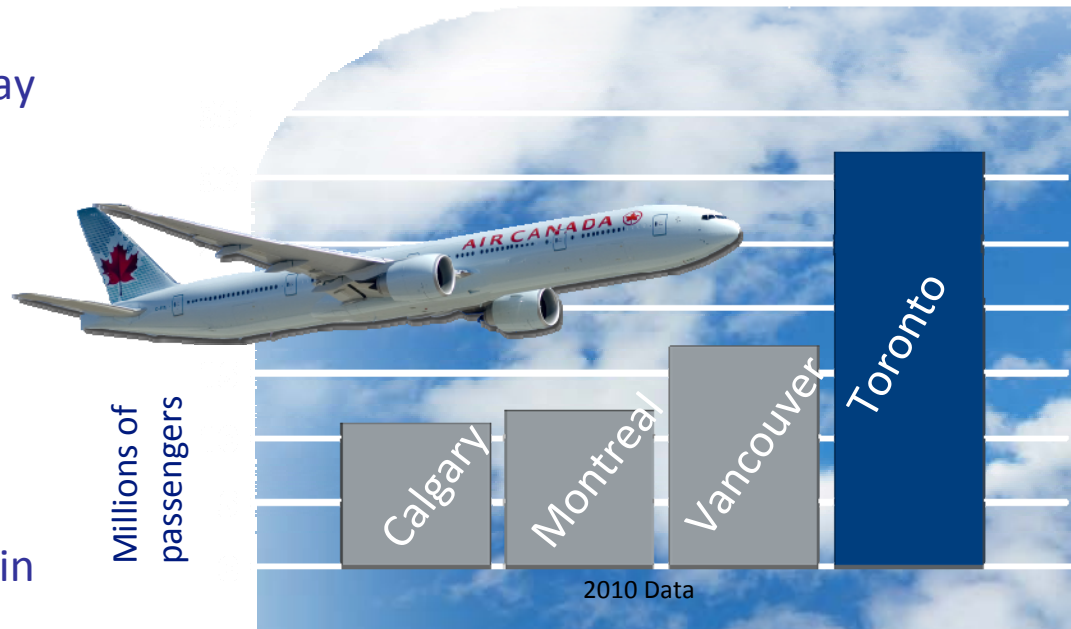
Lester B. Pearson International Airport



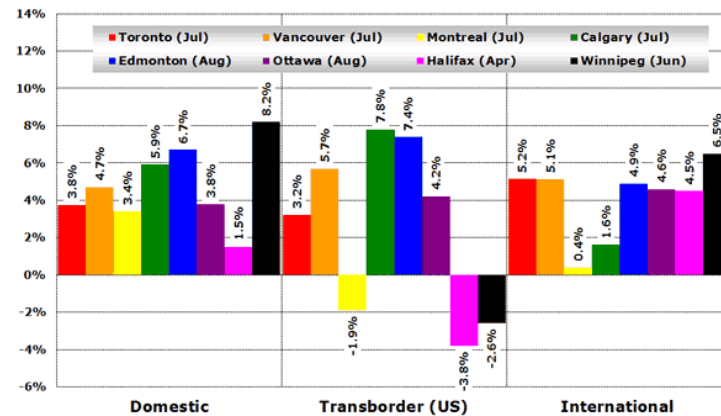
Toronto Pearson International Airport

- ~91,500 passengers per day
- 33.4 million passengers in 2011
 - Ability to handle more than 38 million per year
- 4th largest entry point into North America
- 1/3 of total air traffic within Canada
- 30% of total air cargo within Canada
- 15th busiest airport in the world based on movements

(January 2012 – ACI Data)



Top 8 Canadian airports 2012
Year to date change in passenger numbers by region



Economic Impact

- Toronto Pearson is a massive economic enabler that drives prosperity and supports jobs:
 - Total volume of revenue generated is \$26.4 billion
 - Total employment income is \$6.8 billion
- Anchor of the largest employment area in Canada
 - 1,100 employees work for the GTAA
 - 38,000 employees work at Toronto Pearson
 - 185,000 jobs supported by the airport





Stormwater Management



Why is stormwater a concern at an airport?

- Jet Fuel
 - Over 2 billion litres of jet fuel used annually at YYZ (5 - 8 million litres/day)
- Aircraft deicing and anti-icing
 - For 2011/12 season over 4.8 million litres of fluid applied on over 11,203 aircraft
 - 2007/08 season over 10.6 million litres of fluid applied on over 15,780 aircraft
- Aircraft Hangar Fire Suppression Systems
- Construction projects (more runoff and increased erosion)
- Other aircraft fluids (hydraulic and lavatory)
- Pavement deicing and anti-icing
- Vehicle maintenance and fuelling

A history lesson ...

- 1939 - August 29 at 1330 first official landing at Malton Airport of an American Airways DC-3 from Buffalo
- 1989 - Transport Canada announces the Expansion of Lester B. Pearson International Airport
- 1991 - Environmental Assessment identifies stormwater as an aspect requiring mitigation (source and end of pipe control) in the Airport Development Plan
- 1991 – Present - Transport Canada begins and GTAA continues with the Master Stormwater Implementation Plan
- Since assuming the operation of Toronto Pearson the GTAA has made capital investments of over \$120million in stormwater management

Stormwater Management Components

Source Control

- Butterfly valve inserts
- Stormceptors
- Trench Drains
- Central Deicing Facility

End of Pipe Controls

- Stormwater Facilities and Ponds

Procedures

Training

Central Deicing Facility

Largest in the World

- 26 hectares – entire site has HDPE liner
- Complex integrated collection system with 13,510 m³ of SADF Underground Storage
- 825,000L Fresh Glycol Storage



Stormwater Facilities – End of Pipe

Four Major Stormwater Facilities

- Aeroquay (7,000 m³)
- Carlingview (17,000 m³)
- Etobicoke Creek (56,500 m³)
- Moores Creek (84,000 m³)

Total Storage 164,500 m³

Eleven existing major stormwater ponds

Total Storage 112,860 m³

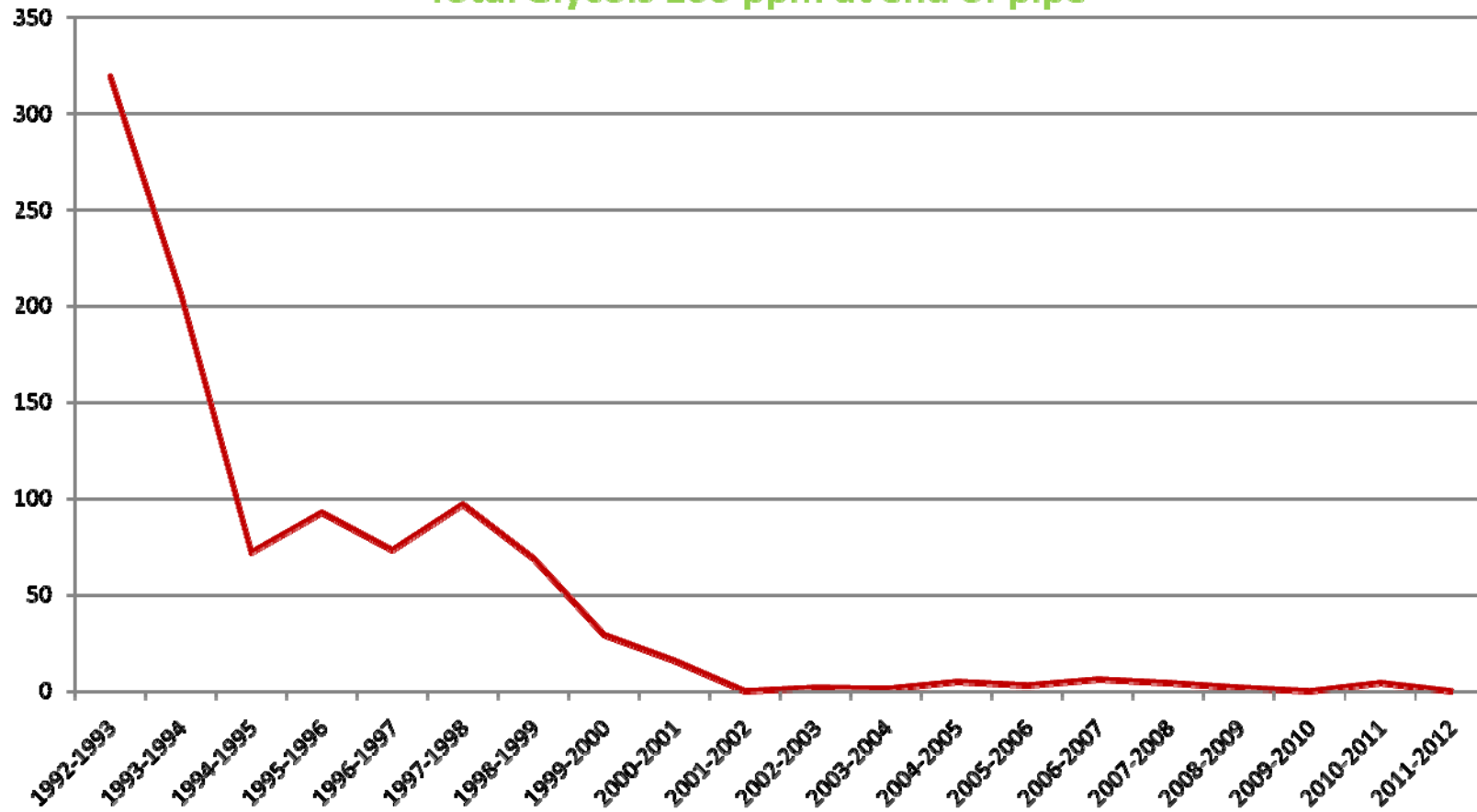
Assorted other minor ponds and oversized ditches

Stormwater Facilities



A measure of our success

Number of Exceedences of Federal Glycol Guideline
Total Glycols 100 ppm at end of pipe



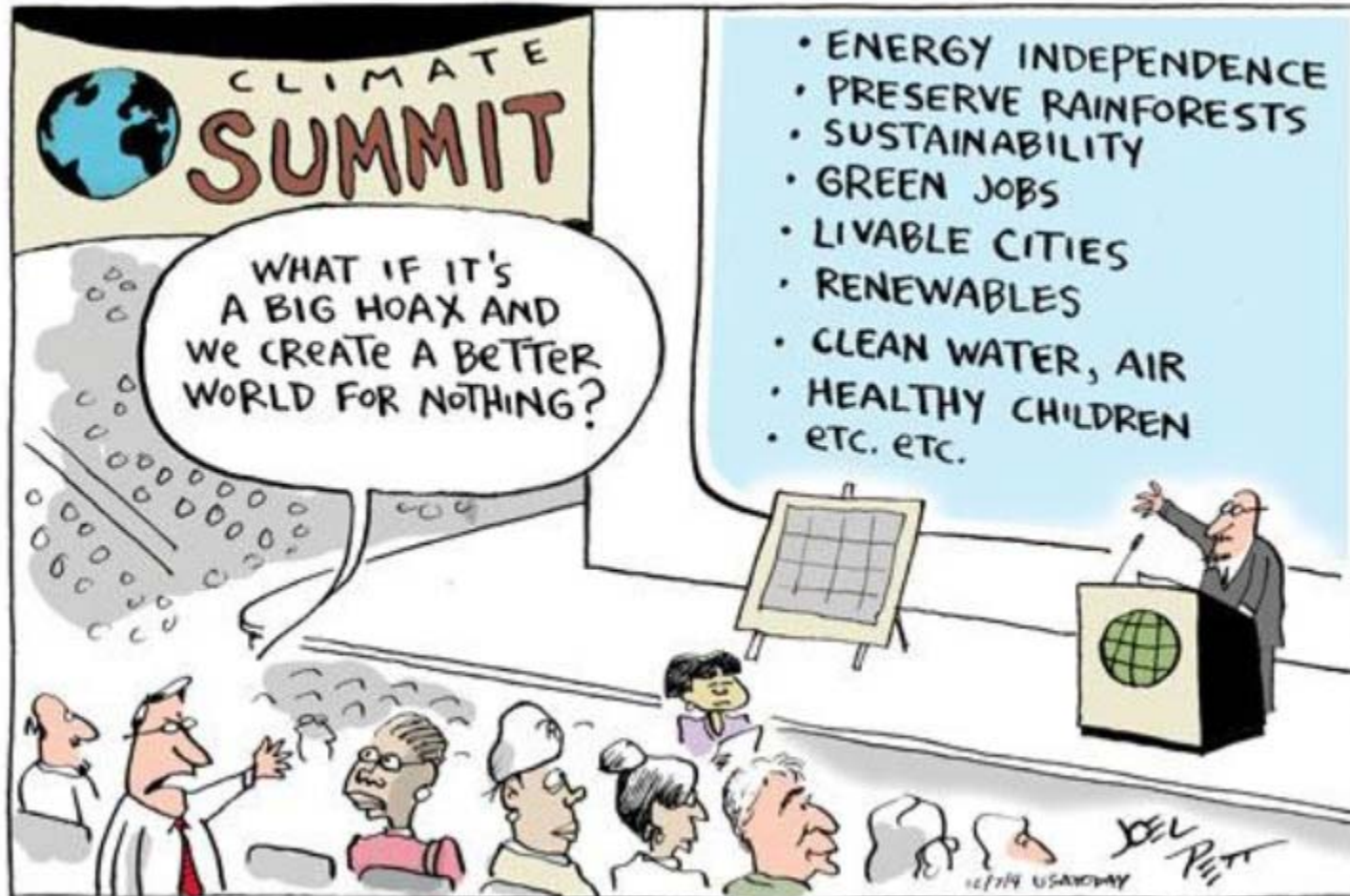
Challenges



Challenges



Challenges





Thank you

Reduce your carbon
footprint,
walk to the pub.

A portion of the solution to reducing our environmental
impact, compliments of the Coopers Brewing Company
(Australia)



For You. The World.

