



12TH CANADIAN POLLUTION PREVENTION ROUNDTABLE

June 10-12, 2008
Edmonton, Alberta

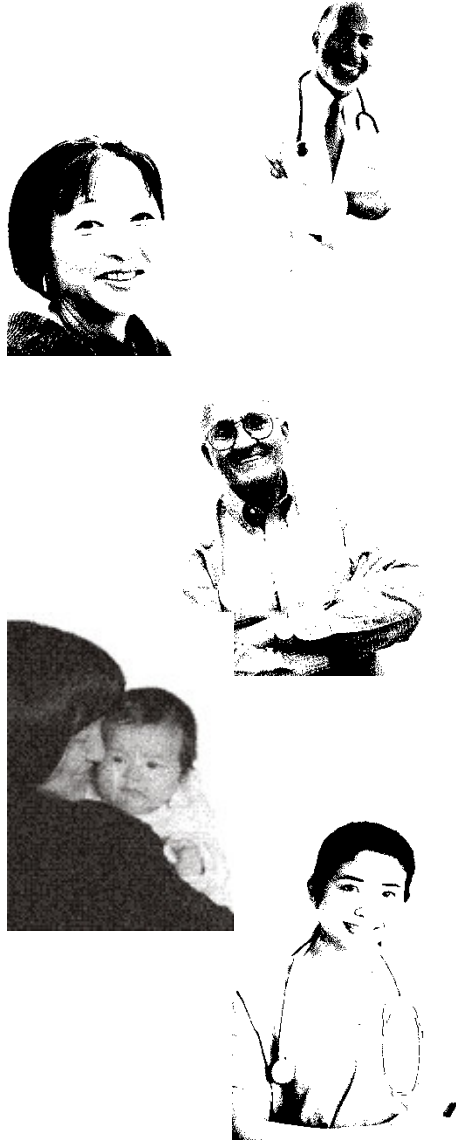
Crowne Plaza- Chateau Lacombe





8.1 “Greening Our Hospital- A Strategic Initiative”

Janak Jass
North York General Hospital



Greening Our Hospital: A Strategic Initiative

June 12th, 2008

CCME

Canadian Council
of Ministers
of the Environment

Le Conseil canadien
des ministres
de l'environnement

“Modern man now carries Strontium 90 in his bones...DDT in his fat, asbestos in his lungs. A little more of this progress and growth, and this man will be dead”. -- Morris K. “Mo” Udall, US Congress

“11-12% growth in cancer incidents by 2011, 20% growth in systemic therapy for cancer cases over the next 5 years”. -- NYGH Cancer Care Program

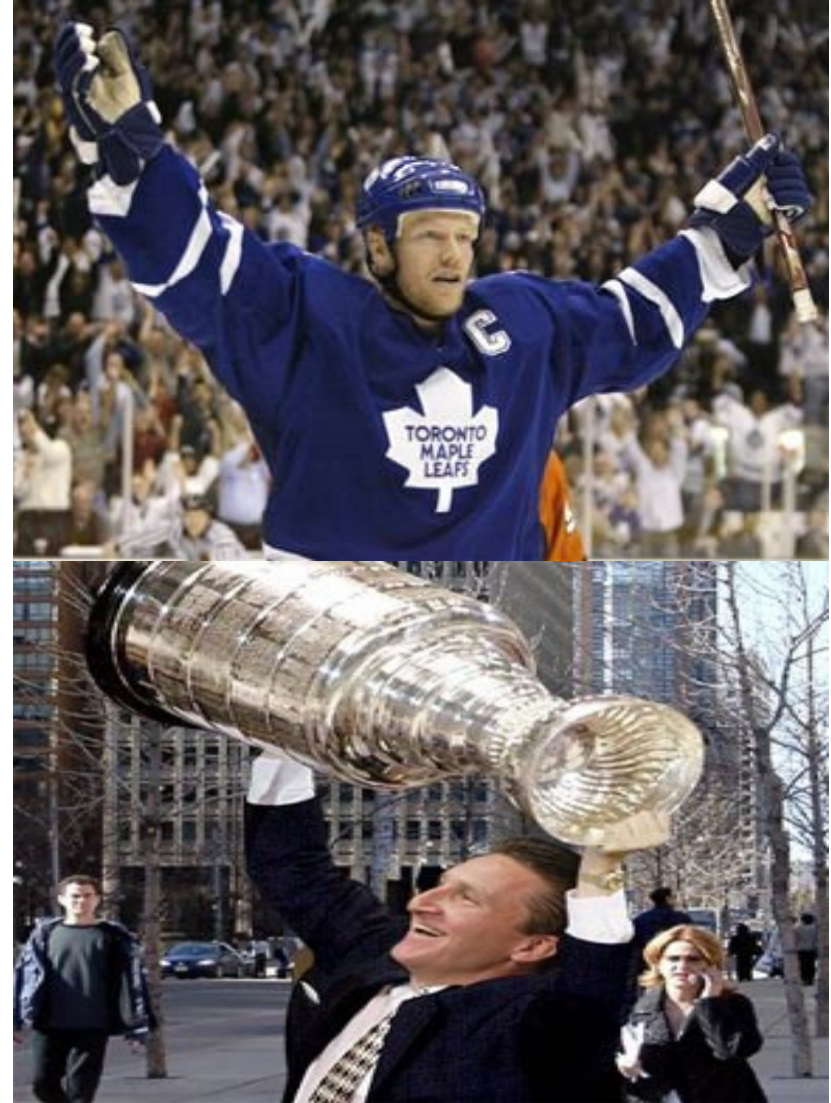


Presentation Outline

1. North York General Hospital
2. Link to Organizational Strategy
3. Project Specifics:
 - Project Team
 - Objectives/Deliverables
 - Indicators
4. Results
5. Challenges



2009 Stanley Cup Champions



North York General Hospital





North York General Hospital

- 3 Sites in North Central Toronto Area:
 - General – 18 Acres, 650,000 Sq.Ft., 420 Acute Care Beds
 - Branson – 20 Acres, 360,000 Sq. Ft., Ambulatory Care
 - Seniors' Health Centre – 5 Acres, 111,000 Sq.Ft., 192 LTC Beds

- \$300M Annual Operating Budget
- 3100 Staff
- 900 Physicians
- 800 Volunteers



North York General Hospital Waste Types

- General Non-Infectious
- Biomedical – Anatomical - ORs
- Biomedical – Non-Anatomical e.g. Sharps
- Anti-Neoplastic and Chemotherapy Waste
- Narcotics and Other Pharmaceuticals
- Radioactive Waste – e.g. Nuclear Medicine Procedures
- Halogenated Anesthetics - ORs
- Food Waste, Grease, etc.
- Spent Oil/PCBs/Asbestos/Construction Materials
- X-Ray Silver
- Computer/Printers
- Others – paper, cardboard, mattresses, etc.



Link to Strategy



- Hospital's Strategy Management System
- One of 23 Approved Strategic Initiatives
- Used Project Management Approach
- One Year Initiative with a Sustainability Plan



Project Team & Objectives

- Multi-disciplinary Green Team

- Objectives:
 - ✓ Implement Pollution Prevention Plan
 - ✓ Develop Waste Management Program
 - ✓ Improve Energy Efficiency
 - ✓ Improve Water Usage



Deliverables

- Develop the Green Team
- Develop a Work Plan
- Identify Sustainability Indicators
- Develop Sustainability Plan



Green Team Work Plan

➤ Work with Partners:

- Toronto Region Sustainability Program
- Ontario Centre for Environmental Technology Advancement
- Canadian Centre for Pollution Prevention
- Enviro-Stewards Inc.
- Turtle Island

➤ Update all Information since 2002

➤ Reassess and Follow-up

➤ Implement Sustainability Plan



Sustainability Indicators

- Reduced Subject Pollutants Use
- Reduced Hazardous Waste Disposal
- Reduced Solid Waste to Landfill
- Increased Solid Waste Diversion
- Reduced Energy and Water Usage



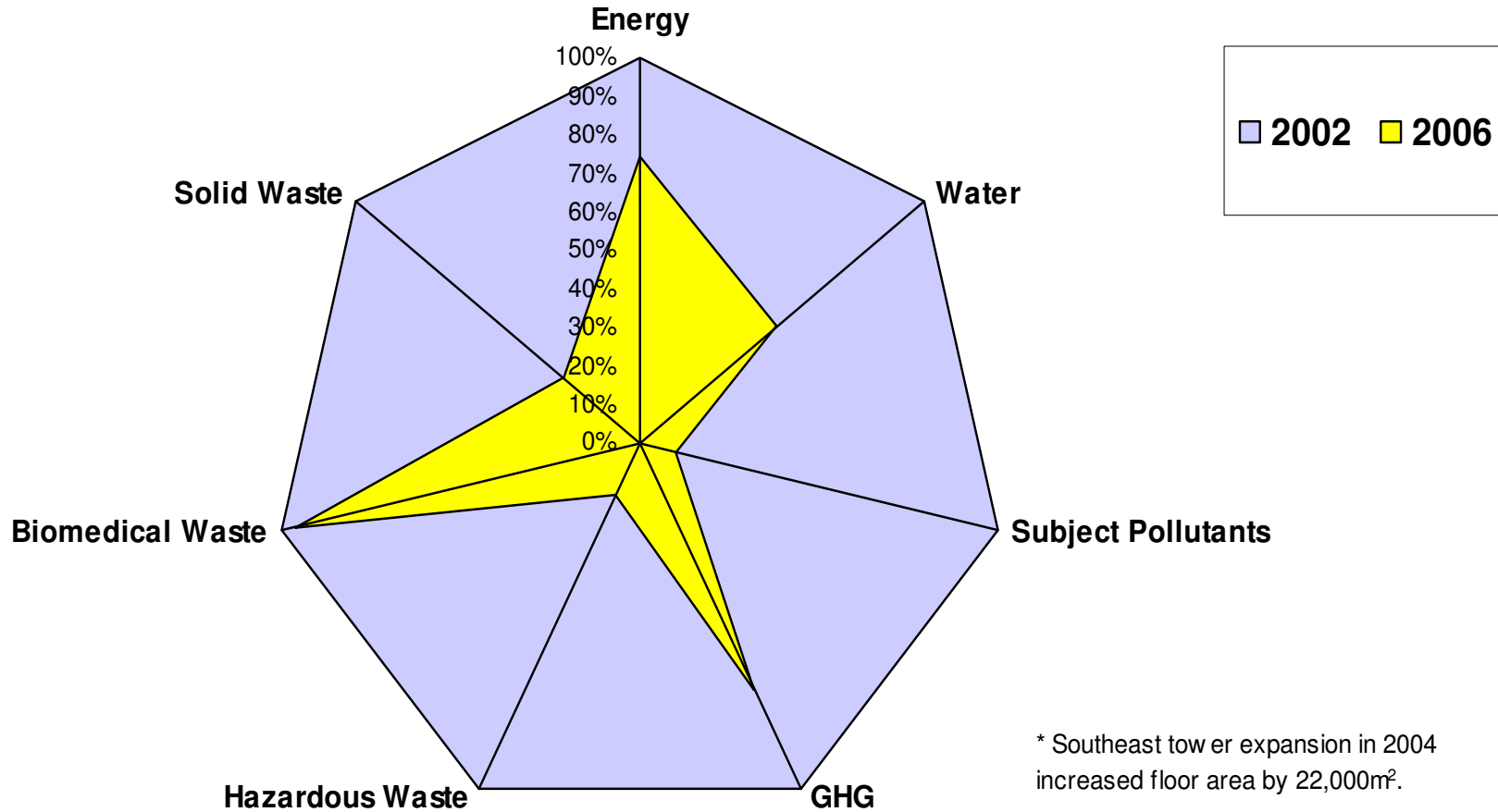
Sustainability Plan

- Monitoring of Identified Indicators
- Annual Compliance and Stewardship Report
- Proposal for “Green Coordinator”
- Permanency of Green Team
- Identifying Departmental Champions



Results

Environmental Footprint 2002 - 2006
(per m² Basis*)

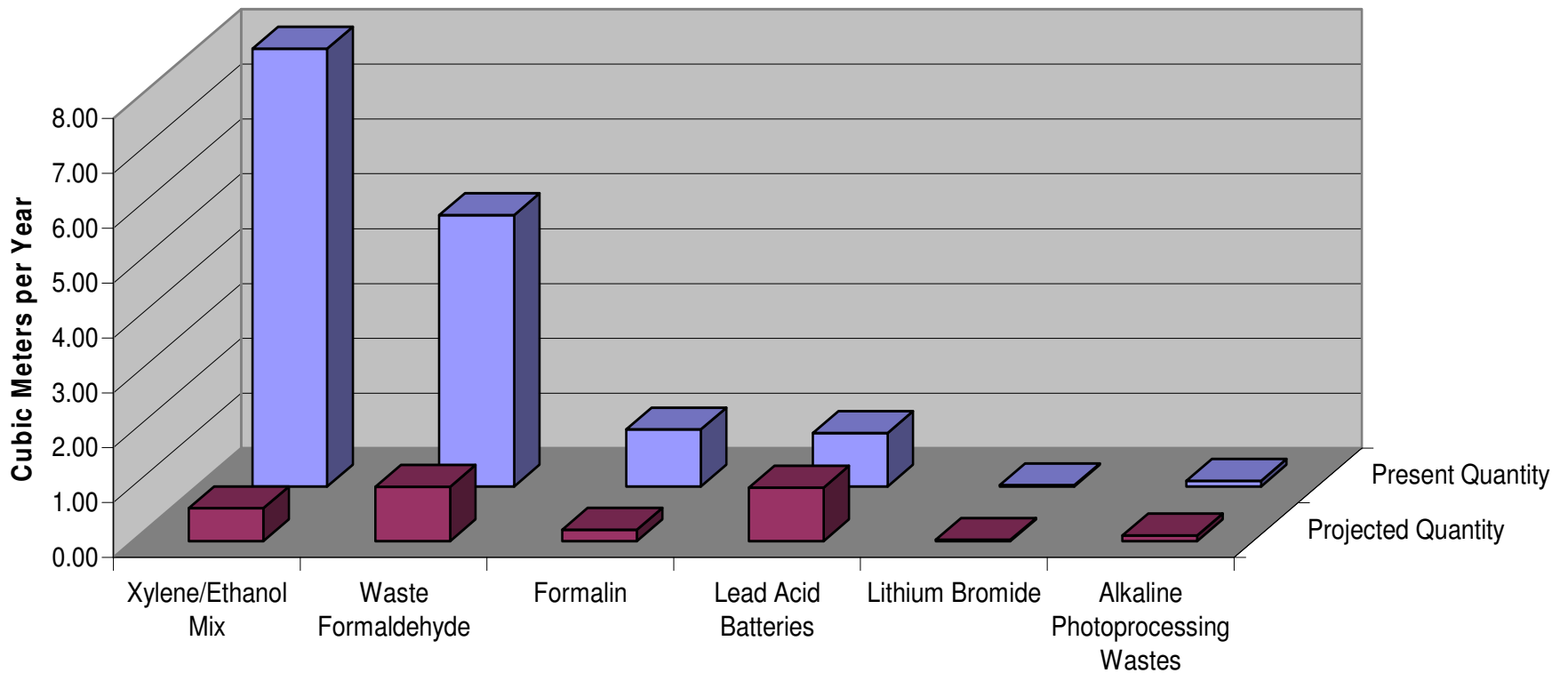


* Southeast tower expansion in 2004 increased floor area by 22,000m².

Sustainability Reporting

Hazardous Waste

Solvent still purchased June 2005 is projected to reduce hazardous waste generation and solvent purchases by an average of 80% (\$25,000/yr annual cost savings with 1.7 yr payback)





Some Examples

97% Reduction in Quantity of Nonyphenol Ethoxylate (NPE)
Discharged to Sewers

75% Reduction in Hazardous Waste by Installing a Solvent
Still for Recycling Alcohol

5 Tonnes of Sharps Diverted from Normal Biomedical Waste

Increased Diversion of Solid Waste to Recycling Streams from
31% to 55%

Solvent Recycling Still



Sharps Recycling Containers



Recycling Containers





Energy & Water Reduction

- Upgraded Building Automation Controls
- New Heat Recovery System including Heat Recovery Chiller
- Introduction of a Low Temperature Glycol System
- Less Reliance on Steam
- Water Cooled to Air Cooled Compressors & Heat Pumps
- Increased Use of LED Lighting
- Ongoing Retrofitting to Low Flow Toilets



Additional Benefits

Development of “Think Green” Culture

Positive Results Reward Further
Improvements

Increased awareness of Subject Pollutants,
Waste Management, Energy and Water Use

NYGH Seen as a Leader in Environmental
Planning and Action

Think Green Culture: Earth Day at NYGH



2007 Ontario Hospital Association & Canadian Coalition for Green Health Care Award





Challenges

- Inconsistencies Especially Across Sites
- Personal Agendas



Challenges

Business Case for “Greening”

2 Wrong Questions to Ask:

1. How Much Will It Cost?

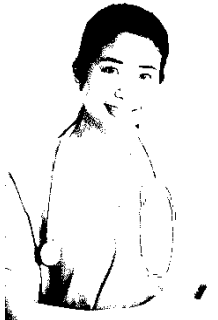
2. Does It Pay To Be Green?



Challenges

Upfront Effort and Sustained Progress

“The ultimate test of man’s conscience may be his willingness to sacrifice something today for future generations whose words of thanks will not be heard.” -- Gaylord Nelson, Co-Founder of Earth Day



**North York
General Hospital**

Including the IODE Children's Centre

Embracing Health

THANK YOU

jjass@nygh.on.ca

thumphrie@nygh.on.ca