

# ***Parks, Forestry and Recreation Greening Initiatives***



***“We are responsible for our common grounds – the urban forest that enfolds us, the parks and public spaces that enliven us, the activities and skills that give our children their first thrills and triumphs.”***



## Our Common Grounds Strategic Plan:

- 15-year Parks, Forestry & Recreation Strategic Plan to take us to 2020
- One of the three key pillars of the strategic plan is:
  - *Environmental Stewardship*



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## PFR Strategic Plan Key Targets:

- Expand tree canopy from 17% to 30-40% by 2050
- Increase stewardship of natural areas from 5 to 100% protected & restored
- 80% satisfaction level of park users





## **Climate Change & Clean Air Action Plan Targets**

- Implement “green building design” standards in PFR capital projects
- Reduce energy and water consumption through building retrofits and conservation measures
- Use “green” technologies in the construction of new facilities and renovation projects
- Increase waste diversion rates in PFR facilities
- Reduce storm water runoff in our parks and apply water conservation measures to our irrigation systems





## Climate Change & Clean Air Action Plan Targets (cont'd)

- Double the existing tree canopy to 34 percent by 2050
- Replace older small powered equipment (two-stroke engines) with new “greener” models
- Work with Transportation Services to Complete the bikeway system by 2012
- Develop a Divisional Emergency Management Plan





## **Parks, Forestry and Recreation “Green” Partnerships**

**PFR mobilizing to achieve the Climate Change and Clean Air Action Plan (CCAC):**

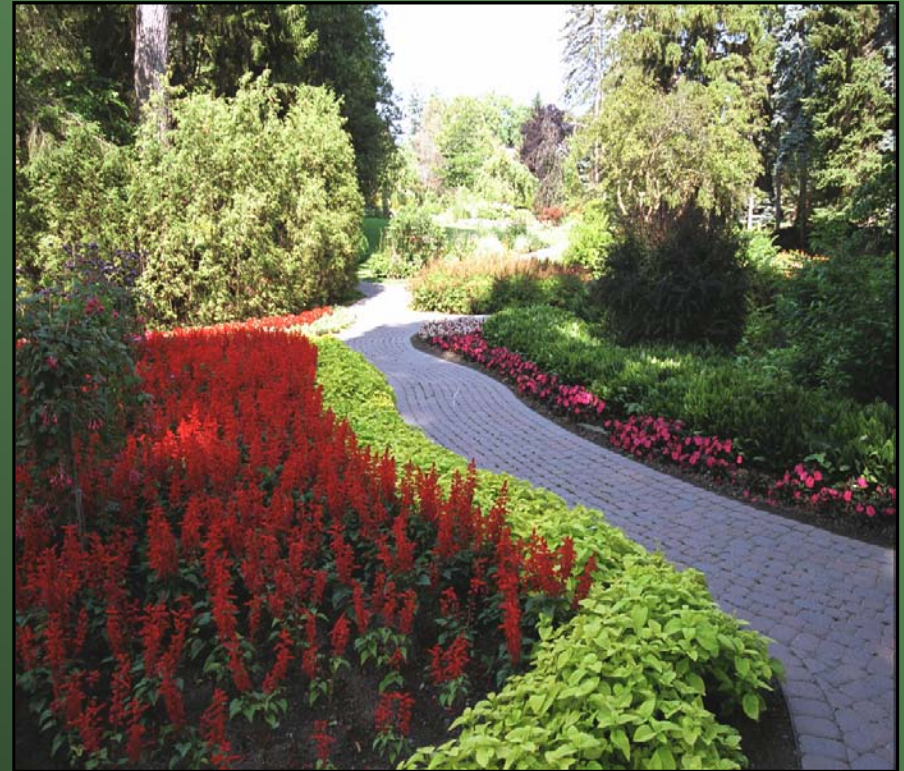
- **Formation of a Divisional “Green Team”**
- **Participate on Executive Environment Team**
- **Partner with A,B,C,D’s to implement Climate Change Action Plan**
- **Participate on Corporate Adaptation Strategy Steering Committee**
- **Chair the Inter-Divisional Tree Committee**
- **Partner with the Toronto Parks and Trees Foundation**
- **Partner with Trees Across Toronto**
- **Partner with Community Advisory Committees & Environment Groups across the city.**
- **Partner with Clean and Beautiful Secretariat and Transportation Services on the Orphan Spaces Program**





## Parks, Forestry and Recreation

- **Manages and Maintains:**
  - 7,393 hectares of Parkland, 839 Sports Fields & 225 km of Trails
  - 3,105 ha. of Turf maintained using IHPC (pesticide-free) practices
  - 8 Greenhouses & 3 Conservatories
  - 17 Children's Learning Gardens
  - 47 Allotment & Community Gardens
  - 40 ha. of Horticultural Displays annually
  - Grow 1.3 Million Flowers & Plants annually



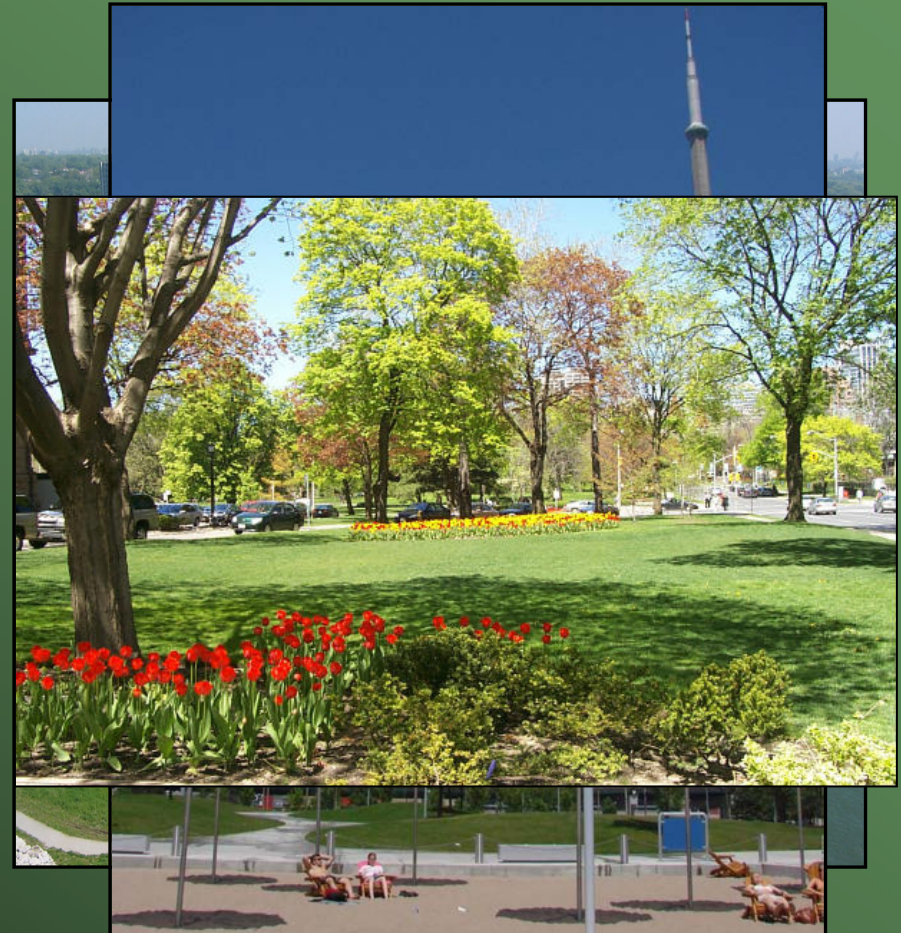
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## Expansion of Parks System:

- **New parks in 2007:** HtO, Measurement & Ireland Parks, Pt. Union Waterfront, Village Securities
- **New parks in 2008:** Mimico Linear Waterfront Park, Transition Sports Field, Circulating Channel, Pedestrian / Cycling Bridge, Spadina Head of Slip & Leslie Street Greening (Phase 2)
- **Parkland Acquisition Plan** to increase parkland based on Parkland Acquisition Strategy







## **Waste Diversion:**

- **In 2007, achieved a 46% waste diversion rate in City Parks (up from 43% in 2006)**
- **Targeting a Waste Diversion Rate of 50% by 2010**

## **Water Conservation in Parks:**

- **30% of Park irrigation systems computer controlled for weather conditions**
- **Splashpads timer controlled**
- **New Don River Park to recycle splashpad water for park irrigation**
- **Drinking Fountains retrofitted (user control or automatic stop devices)**
- **Park Master Plans to include water-efficient irrigation needs (e.g. Centennial park master plan)**

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## PARKS GREENING INITIATIVES

- **Green Fleet**
  - 3 new Hybrid Aerial Tower trucks & 5 Smart cars in 2008
  - 10 Hybrid trucks and cars in 2009
- **Bike Trails**
  - 1.2 km of Bike Trails planned for 2008
  - New signage along Humber River & Don river Bike Trails
- **Geothermal pilot project**
  - Geothermal heating / cooling system for a new development complex to be installed in a City Park and TDSB site
- **Park lighting**
  - Over 6000 park lights replaced with energy efficient bulbs







## Community Horticultural Greening Initiatives:

- Project Sunflower
- B.U.L.B.S. (Better Urban Landscape with Bulbs) – 90,000 bulbs planted over 2 years.
- Take the Garden to the Neighbourhood Park Program
- Urban Farm
- Communities in Bloom – 2007 award winner
- Orphan Spaces – total of 65 citywide (in collaboration with Transportation Services)
- Green Parking Lots – Lake Shore & Toronto Botanical Gardens



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## 2007 PARKS GREENING STRATEGIES

- People, Dogs and Parks Strategy
- Waste Diversion Strategy
- Parks Renaissance Strategy Directions Report
- New City-wide Alternate Rate for Parkland By-law



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## Urban Forestry Initiatives

The Urban forest is one of the most prominent environmental assets in the city. Toronto has recognized the environmental benefits of the urban forest and has set a goal to increase canopy from 17% to 30-40%.



### Cornerstones to doubling tree canopy:

1. Plant more trees
2. Manage & maintain existing trees
3. Protect existing trees
4. Planning & Policy Development

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## Plant More Trees

Increase long term canopy potential

- Replacement trees:  
for every tree removed – 7000 trees annually
- Trees Across Toronto:  
46,000 trees & shrubs in naturalized sites annually
- Planting partnerships:  
with Toronto Water, Toronto Transportation – 5,000 calliper trees & 40,000 trees & shrubs annually
- Planting in areas under forest management:  
to encourage natural regeneration – 8000 trees & shrubs annually



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## Manage & Maintain Existing Trees

### ➤ Street Tree Management:

Maintain 35,000 trees annually to enhance structural integrity health & longevity

Reduce tree maintenance backlog

Implement 311 work order system

### ➤ Maintenance of Newly Planted Trees:

Systematic maintenance and watering of 20,000 young trees annually to increase tree survival rates, improve crown structure & reduce long term maintenance requirements

### ➤ Natural resource management:

Enhancing the integrity of high value ecosystems; 20 projects annually

### ➤ Forest Health Care:

Managing emerging issues through monitoring and implementation of control measures





## Protect Existing Trees

Maximize tree canopy potential by ensuring healthier trees and avoiding unnecessary tree damage or removal.

- **Ravine & Natural Features Protection Bylaw**. Recent features added to protected areas include:
  - Wooded portions of Lake Iroquois Shoreline
  - Tableland forests
- **Private and Street Tree Bylaws** strengthened through recent amendments







# Planning & Policy Development

Working with other city divisions & agencies on policies to improve tree planting and growing conditions in the city.

- Wet weather flow initiatives
- Green development standards
- Soil & tree trenches
- Streetscape manual planting details 0%
- Public & corporate education initiatives 40%
- Tree Canopy study



17%



40%



60%

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## **Parks, Forestry and Recreation Facilities 2007 Greening Initiatives:**

- **Green Roofs (e.g. Toronto Botanical Gardens)**
- **Green Roofs for 4 new projects:**
  - Regent Park Pool
  - Warden Corridor Community Centre
  - Parkway Forest Community Centre
  - York Community Centre
- **PFR Facility Energy Retrofits  
(from 2005 to 2007):**
  - 42 Arenas, 3 Curling Rinks, 7 Indoor Pools,  
27 Community Centres, 45 Outdoor Rinks
    - Project Cost – \$10 Million
    - CO<sub>2</sub> Reduction – 4660 Tonnes
    - Estimated Annual Cost Savings - \$1.26 million
- 2008 FCM Sustainable Community Award



Toronto Botanical Gardens





## Parks, Forestry and Recreation Facilities 2007 Greening Initiatives:

- **Retrofits included:**
  - New building automation systems
  - Lighting reduction measures and dimmer controls
  - Building envelope sealing at 32 Arenas
  - Brine heater insulation at 10 Arenas
  - Piping insulation at 6 Arenas
  - Solar Panel installations at 3 Indoor Pools
  - Pool heat saver pump installations
  - Heat Recovery Systems at 5 Arenas



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## **Additional Retrofit Projects:**

- lighting & heating retrofits to Centennial Park greenhouse
- solar panel installed at Trinity Bellwoods Greenhouse
- Solar Panel installations at 3 Splashpads

**All Capital Projects to include “Green Initiatives”**







## Parks, Forestry & Recreation 2007 Greening Initiatives (cont'd)

- **Facility Operations Efficiencies:**
  - **Achieved 51% Facility Waste Diversion Rate in 2007 and targeting for 70% by 2010**
  - **Conducting Water Consumption Audits and developing a Water Conservation Strategy at all PFR facilities**
  - **Purchased new hybrid Ice Resurfacing Machine to pilot at some of our arenas**
  - **Over 6000 park lights retrofitted for energy efficiencies**
  - **Use green cleaning products**



Hybrid Ice Resurfacer – First in Canada



## Environmental Capital Projects:

- Toronto Bike Plan
- Lower Don River Restoration & Access
- Taylor Creek Wetland/Erosion Control
- Eglinton Flats Pond
- Sherwood Park Erosion & Vegetative Management
- Humber Arboretum Nature Centre







## 2008 PFR Greening Strategies

- Private Tree By-law (Completed)
- Harmonized Ravine Control By-Law (Completed)
- Diversion of Dog Waste in City Parks (July/08 P&E Meeting)
- New Green Development Standards applied to all PFR capital projects
- Shade Provision Strategy (July/08 P&E Meeting)







## 2008 PFR Greening Strategies In Progress

- Harmonized Parkland Dedication By-law
- Parkland Acquisition Strategy
- Small Equipment Replacement Strategy (replace “2-stroke engines” with greener technologies)
- Parks Renaissance Strategy
- Western Waterfront Master plan
- Toronto Beaches Plan
- Tree Canopy Study
- “Green Team” Review of PFR Business Practices



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