



# Environmental Initiatives of Transportation Services

## Parks and Environment Committee



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 **TORONTO**

# Transportation Services

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**Transportation is achieving Environmental Sustainability by:**

- ❖ Changing Attitudes and Behaviours;
- ❖ Providing Sustainable Options and Solutions;
- ❖ Pursuing Innovation through Technology; and
- ❖ Building Infrastructure that is Resilient to Climate Change



# Presentation - Overview

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- ❖ **Division's Strategic Directions**
- ❖ **Major Environmental Initiatives**
- ❖ **Transportation Initiatives that support Climate Change, Clean Air and Sustainable Energy Plan**
- ❖ **Going Forward Environmental Initiatives**

# Strategic Directions

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Transportation's **Two Key Objective Areas** are:

- ❖ Sustainable Transportation Systems, Programs and Solutions; and
- ❖ Environmental and Social Sustainability

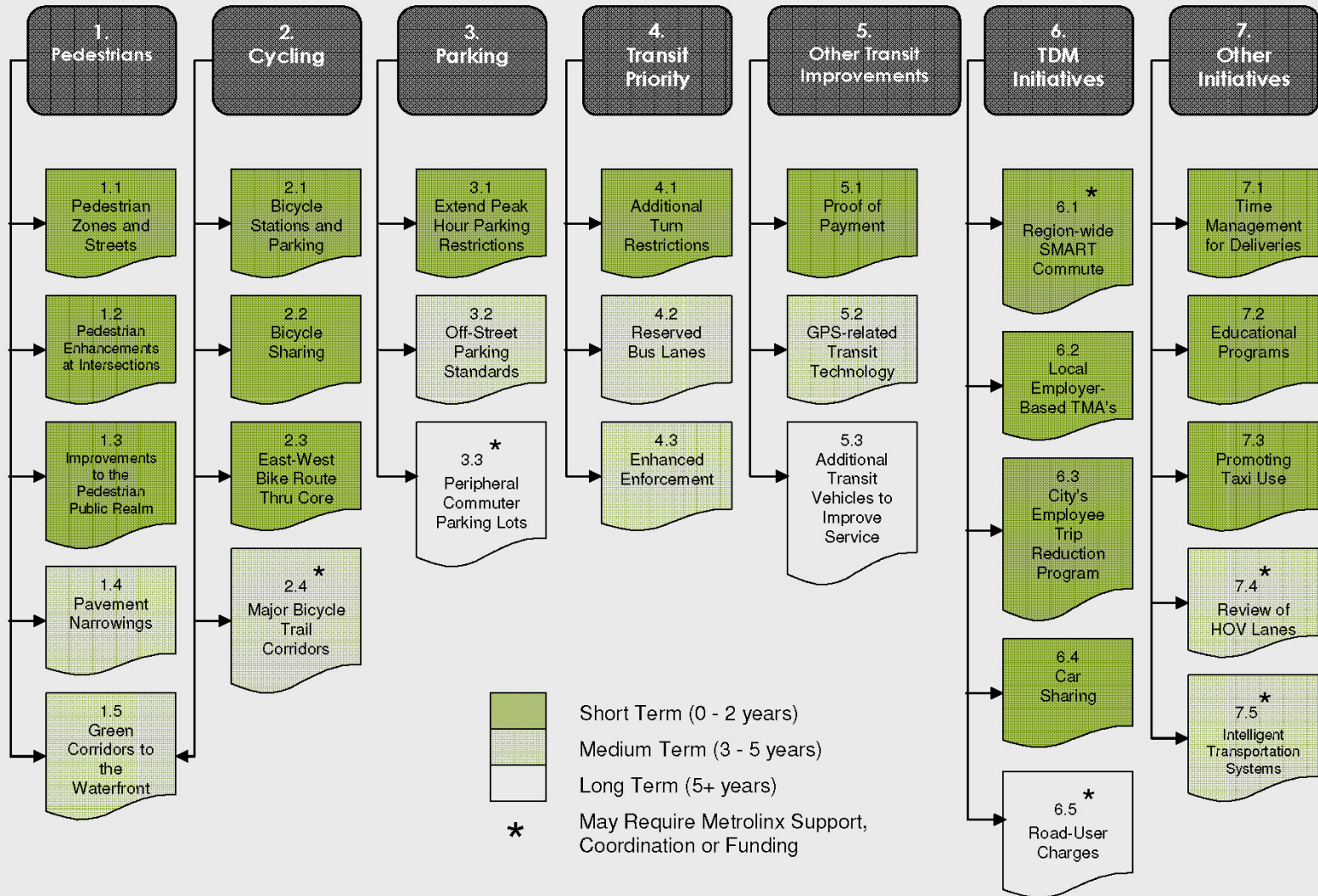
# Major Environmental Initiatives

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- ❖ Sustainable Transportation Initiatives;
- ❖ Operational Best Practices;
- ❖ Renewable Energy and Energy Efficiency Projects;
- ❖ Greening of the Fleet and Sustainable Facilities;
- ❖ Waste Diversion and Recycling; and
- ❖ Tree Planting and Naturalization



# Sustainable Transportation Initiatives – Summary Chart



# Major Environmental Initiatives



Bicycle Stations  
East-West Bike Route  
Extended Pedestrian Zones  
and Parking  
Thru Core  
Dundas Street Station  
and Stations



# Major Environmental Initiatives

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## Additional Sustainable Transportation Initiatives:

- ❖ Toronto Bike Plan;
- ❖ Sidewalk Installation Program;
- ❖ Walking Strategy;
- ❖ We're All Pedestrians; and
- ❖ Enhanced Transit Priority Signal System





# Major Environmental Initiatives

## Operational Best Practices Initiatives:

- ❖ Salt Management Plan;
  - average annual salt reduction ~24,000 tonnes, since 2001
- ❖ Environmentally Preferred Pavement Markings;
  - reduced VOCs by 102,000 kg annually
- ❖ Intelligent Transportation System
- ❖ Transportation Smog Response Plan



# Major Environmental Initiatives

## Energy Efficiency and Renewable Energy Initiatives:



- ❖ LED Traffic Signal Lamp Conversion;
  - 18.7 megawatt-hours reduction
  - \$1.9 million savings in energy cost

- ❖ Solar Powered Transit Shelters;
  - 12.7 million KWh reduction - 20 year contract
  - 12,000 tonnes in GHG reduction

- ❖ Solar Powered Pedestrian Lights





# Major Environmental Initiatives

## Support Greening of Fleet and Sustainable Facilities Initiatives:

- ❖ Greening of Transportation Fleet;
  - 141 green vehicles by the end of 2009
- ❖ Anti-Idling By-law; and
- ❖ Sustainable Wash Bay Facility



# Major Environmental Initiatives

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## Support Waste Diversion/Recycling Initiatives:

- ❖ Support the Waste Diversion Plan 2007-2010;
- ❖ Cold-in-Place and Hot-in-Place Recycling Asphalt;
  - Over 4 million MJ of energy saved in 2006 & 2007 in CIP Projects



- ❖ Pulverization;
- ❖ Recycled Asphalt Product; and
- ❖ Crusher Recycled Concrete Product



# Major Environmental Initiatives

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## Tree Planting and Naturalization Initiatives:

- ❖ Naturalization/Boulevard Transformation

- ❖ Tree Planting

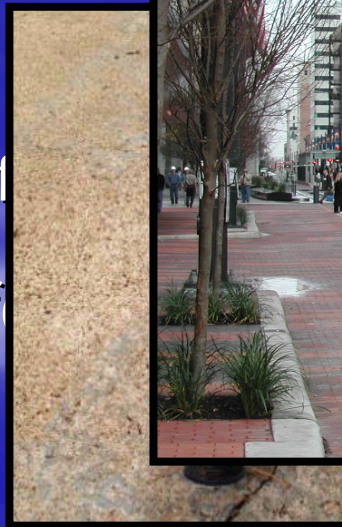
  - ❖ 2,500 trees planted annually

- ❖ Take BAC 13



# Climate Change, Clean Air and Sustainable Energy Plan

- ❖ Transit City Plan;
- ❖ Bike Plan – implemented in 2010
- ❖ Phase-out of two-wheelers
- ❖ Clean Roads
  - 14 tonnes of litter removed
- ❖ Car sharing for 1000 people





# Going Forward Environmental Initiatives

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- ❖ **Sustainable Transportation Implementation Strategy**
- ❖ **Development of Environmental and Climate Change Risk Assessment Methods**
- ❖ **Assess Sustainability of Equipment, Technology and Materials**

# Risk Assessment



- ❖ Infrastructure Vulnerability Assessment;
- ❖ Develop an Environmental Management System (EMS) & Climate Change Risk Assessment Procedures; and
- ❖ Evaluate Operational and Environmental Impacts & Develop Adaptive Actions to Mitigate Risk



# Assess Sustainability

## Assess Sustainability of Equipment, Technology and Materials:

- ❖ Green Streets;
- ❖ Sustainable Sidewalks;
- ❖ Alternative Pavement
  - Warm Asphalt
  - and GHG emis
- ❖ Renewable E
- ❖ Energy Efficient
- and Yards





Questions?

