at the Niagara Parks Commission

Going Even Greener

at the Niagara Parks Commission
About Us

- Self-funded agency of Ontario Government
- Established in 1885
- Niagara Parks Act
  - R.S.O. 1990, c. N.3
  - R.R.O. 1990, Reg. 829: GENERAL
- 56 kilometres of parkway
- 1,325 hectares of land
- Niagara-on-the-Lake to Fort Erie
Mandate and Vision

• An innovative example of sustainability as the environmental and cultural stewards of the Niagara River corridor

• A welcoming, accessible and inspiring place offering world-class natural, historical, and authentic experiences

• A source of national pride and identity

• One of the most spectacular Parks in the world
Environmental Services

- Waste Collection & Diversion
- Public-space Recycling
- Litter Control
- Special Clean-ups
- Events Waste Management
- Composting
- Waste Audits and Reduction Strategies
Waste Collection & Diversion

- A goal of 50% diversion by 2028
- Post-consumer and Operational
  - Garbage
  - Recycling (Single-stream & Cardboard)
  - Scrap Metal
  - Clean Wood
  - Waste Electronics
  - Hazardous Waste
  - Special Events Organics
Waste Collection & Diversion

Equipment

- Labrie: Split-body packer
- New-way: Mini-packer
- Palfinger: Knuckle-boom crane
- CAT: Front-end loader
- Kubota: RTV
- BinPak Compactors
- Reaction Distributing Compactors
Material Transfer & Off-site Transport

- Roll-off bins
  - Garbage, C&D, Scrap Metal, Clean Wood, Cardboard
- Front-load bins
  - Garbage, Cardboard, Single Stream Recycling
- Compaction
  - Garbage
- Baling
  - Cardboard and LDPE Rain Ponchos
Public-space Recycling

Receptacle Updates
- Park-wide replacement
- Recycling capture

Garbage/Cans & Bottles
- Dual capacity
- Text-based signage

Rain Bonnets
- Rain bonnets to protect from mist
- Text and imagery

Colour Coding
- Colour to identify separation of materials

Culinary Spaces
- Park-wide replacement
- Function and aesthetic
Litter Control

- Impact of park visitation and tourism
- Daily/on-going collection of litter
- Manual & automated collection
- Sorting recyclables
- Environmental responsibility!
Clean-up Events – Niagara Glen/Whirlpool Extraction (2018)
Clean-up Events – Over-the-wall (2019)

- Forestry Department and Environmental Services
- Arborist’s expertise (tree climbing)
- Bi-annual clean-up scheduled for the future
- Protecting the Falls and downstream
Clean-up Events – Journey Behind the Falls (2019)

• Stormwater drains carry uncaptured litter to the bottom of the gorge
• Visitors misplace items in awe of the Falls
• Litter from overhead viewing platform
Sidewalks & Facilities

- Mathieu MC210 Compact Sweeper
- Equipment functions:
  - Sweeping
  - Polishing
  - Pressure Washing
  - Weeding
- Dust control system allows outdoor and indoor application
Composting

- Leaf & Yard material collected and transported to a centralized location
- Fluctuations in feedstock volume (seasonal change, horticulture programming, wind-storms, etc.)
- Composting to make productive use of our property
- Composting to improve soil health throughout the Park
Challenges

- Weather, weeds, and equipment
- Adapting methods according to site conditions
- Staffing and time-constraints
- Education and awareness of the composting process, contamination, etc.
- Perfecting Grandma’s recipe!
A Work in Progress

• Formalization (site-layout, SOP’s)
• Compost Operator Course
• Monitoring
• Additional equipment:
  • OMEGA Compost Thermometer
  • Vipermetal VPH 2-1500 Crusher / Screening Bucket
Waste Audits and Reduction Strategies

- Incremental approach to reviewing park-wide waste management system, one facility at a time
- Identifying opportunities for waste reduction or increased diversion
- Working with Niagara College Environmental Management and Assessment Program
Environmental Stewardship Initiatives

- Prescribed Burns
- Invasive Species Management
- Urban Forestry Management Strategy
- Pollinator Gardens
- Shoreline Erosion & Riparian Restoration
Prescribed Burn Program

- Environmental management tool that mimics the natural process of fire
- Controls the spread of invasive species
- Encourages germination of dormant native seeds
- Returns nutrients back to the soil
- Utilized by Niagara Parks since 2008
Invasive Species Management
Urban Forestry Management Strategy

- Maintain and Increase Canopy Cover
- Increase Species and Habitat Diversity
- Mitigate Impacts
- Increase Awareness and Promote Stewardship
- Improve Data Collection and Monitoring
Established and enhanced 12 pollinator garden habitats

Planted 15,000 wildflowers and shrubs

Interpretive signs include content inspired by the Haudenosaunee Confederacy and Anishinaabe

$110,000 funding support provided by MTCS and Land Care Niagara

13th garden planted last fall with support from Pollinator Partnership Canada
Shoreline Erosion and Riparian Zones

• Dedicated Stewardship operations team established fall 2018
• Invasive species removed on over 10km of upper Niagara River shoreline
• Planted over 15,000 native shrubs along shoreline to stabilize riverbanks
• Ongoing maintenance strategy
Certified Audubon Cooperative Sanctuaries for Golf

- Legends on the Niagara Golf Complex – Certified 2013
- Whirlpool Golf – Certification in Progress
- Requirements:
  - Habitat/Species Management
  - Water Quality/Conservation
  - Chemical Use and Reduction
  - Turf Management
  - Outreach and Education
THANK YOU!