Public Works contributes towards the City of Hamilton’s vision to be the best place to raise a child and age successfully.

The Public Works Department supports the City’s vision by providing high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner. The department brings the City’s vision and mission to life through its core services including corporate facility management, infrastructure rehabilitation, roads operations, parks and green space maintenance, transit, and waste management which are essential to the lives of residents and visitors to the City.

Public Works provides services that are central to the lives of Hamiltonians.
# SERVICES AND SUB-SERVICES

## Cemeteries
- Active Cemetery Management
- Dormant Cemetery Management
- Active Cemeteries Support Services

## Corporate Asset Management

## Corporate Security

## Energy Initiatives
- Energy Engineering Services
- Utilities

## Facilities Management
- Capital Planning and Project Management
- Facilities Operations and Maintenance
- Facilities Planning and Business Solutions
- Space Management/Accommodations
- Stadium Operations
- Compliance

## Fleet Services Management
- Capital Planning and Contract Management
- Fleet Maintenance
- Materials, Fuel and Systems Management
- Regulatory Compliance and Driver Training

## Forestry
- Tree Maintenance
- Tree Planting
- Tree Maintenance and Planting Support Services

## Horticultural Programs
- Beautification
- Beautification Support Services

## Parks and Open Space Access
- Parks Maintenance
- Planning, Design, Development and Acquisition
- Natural Open Spaces
- Parks and Natural Open Space Support Services

## Public Transportation
- Conventional Public Transit
- Rapid Transit
- Specialized Public Transit
- On Demand Transit

## Roadway Maintenance
- Right of Way Infrastructure Maintenance Support Services
- Right of Way Infrastructure Repairs and Maintenance

## Transportation Operations
- Transportation Systems
- Traffic Engineering and Road Safety
- Signs and Pavement Markings Operations
- Signal, Systems & Street Lighting Operations

## Solid Waste Management
- Bulk Waste Collection Services
- Cleanliness Services
- Drop Off and Transfer Facilities
- Garbage and Organic Waste Collection
- Leaf and Yard Waste Collection Services
- Organics Processing
- Recycling Processing
- Recycling Collection
- Solid Waste Support Services
- Waste Disposal and Closed Landfills

## Storm Water Management
- Storm Water Collection
- Storm Water Support Services
- Storm Water Treatment

## Water Supply and Distribution
- Water Distribution
- Water Supply
- Water Support Services

## Wastewater Collection and Treatment
- Wastewater Collection
- Wastewater Support Services
- Wastewater Treatment
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TERM OF COUNCIL PRIORITIES (2018 – 2022)

- Climate Change
- Multi-Modal Transportation
- Homelessness & Affordable Housing
- Integrated Growth & Development
- Fiscal Health & Financial Management
- Equity, Diversity & Inclusion
- Trust & Confidence in City Government
- A Healthy, Respectful & Supportive Workplace
CAPITAL INFRASTRUCTURE
2021 KEY METRICS

- 48 projects tendered worth $111M
- Added 10.24 new lane kms roads
- Added 5.03 new lane kms of sidewalks

PROJECT HIGHLIGHTS

- Pier 8 Promenade Park – Copps Pier
- Pier 5-7 shore wall and boardwalk
- West Harbour gas dock
- Pier 8 Wastewater Pumping Station
- Rymal Road – Fletcher to Upper Centennial
- Sherman Access rockfall protection
- Highway 8 (Phase 2)
CURRENT TRENDS & ISSUES

- Roads value for money asphalt audit
- Design guideline changes
- Managing more complex projects
  - Tunneling projects
  - Escarpment management
  - Airport Employment Growth District
  - North Waterdown corridor

Upper James Force Main

Rymal Road
LOOKING AHEAD 2022

- $30M Canada Community Building Fund
- Development of Transportation Operational Plan (design and construction processes)
- Southcote Road reconstruction
- Claremont Access bin wall removal
- Govenors Road bridge
- Valley Inn bridge
- Concession St/Mountain Brow Blvd.
- Dickenson Road Trunk Sewer Project
2023 - 2025

- Birch Avenue two way conversion and railway bridge replacement
- Lower Centennial trunk sewer twinning
- Upper Wentworth pedestrian bridge across Linc
- North Waterdown corridor
- Garner Road watermain
- 403 sewer twinning
- Stonechurch Road feeder main
- Dundas Street bridge reconstruction
- Pier 8 Gateway Park
- Macassa Bay boardwalk and trail
CAPITAL FACILITIES
2021 KEY METRICS

- Downtown Office Space Accommodation Project
  - Target 200 rentable sq. ft. per employee
  - Reached 186 rentable sq. ft. per employee
  - Reduced gross square feet by 13.8%

PROJECT HIGHLIGHTS

- Greensville School/Community Centre
- Beverly School/Community Centre
- Valley Park Community Centre
- Parkdale Outdoor Pool
- Ancaster Memorial Arts and Culture Centre
- 500 McNab (Ken Soble Tower)
CURRENT TRENDS & ISSUES

- Capital funding shortfalls
- Accessibility for Ontarians with Disabilities Act
- Increased facility inventory
  - Acquiring aging schools
  - Civic property
  - Lodges
  - Hamilton Police Investigative Services Division
Overall Facilities Condition Index (FCI) across 500+ facilities is 9.45% (Fair)

Greensville Hall
FCI est. > 65%

Eastwood Arena
FCI 45%

Brewster Pool
FCI = 12%

Hill Park Recreation Centre
FCI = 21%

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<thead>
<tr>
<th>Facility Condition Index</th>
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<th>Fair</th>
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<td>&gt;30%</td>
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</table>

Breakdown Across All Facilities
- 51%
- 25%
- 16%
- 8%
LOOKING AHEAD 2022

- Divesture of Downtown Entertainment Facilities
- ICIP Funding:
  - Community, Culture and Recreation (CCR) Projects
  - COVID-19 Resilience Funding
- New salt facility at 350 Wentworth St. N
- Continue improving indoor air quality initiatives with air purification systems

2023 - 2025

- ICIP Funding:
  - New Transit Maintenance & Storage Facility
- Hamilton City Housing projects:
  - 55 Queenston Rd
  - Bay/Cannon
  - Macassa Lodge expansion
  - Carlisle Library
  - Confederation Park Phases II and III
  - Waterdown Fire and Police Station
PARKS & OPEN SPACES
2021 KEY METRICS

• 24,782 acres of grass mowed
• 12 play structures installed
• 258 encampment cleanups
• 2,495 metres of trail constructed
• 1,467 meters of trail replaced
• 14.67 Ha parkland built or redeveloped
• 25 park and trail construction projects
• 1,168 trees planted
• 3,301 play structure inspections
• 133 Team Up to Clean Up events

PARKS & OPEN SPACES
PROJECT HIGHLIGHTS

• Spray pads (2 new; 1 upgrade)
• Multi-use courts (1 new; 4 upgrades)
• Tennis courts (2 upgrades)
• Fitness parks (1 new)
• Lighting upgrades/additions (5 sites)
• Condition assessments (fields, walkways)
• Albion Falls viewing platform (design)
• Shoreline protection (DMAF)
PROJECT HIGHLIGHTS

- **Waterford Park**
- **Joe Sam’s leisure park walkway**
- **Mount Hope Boardwalk**
- **Eastwood playground**
- **Veevers playground**
- **Winona playground**
CURRENT TRENDS & ISSUES

- Encampment cleanups
- Climate change
- Enforcement of encroachments
- Backlog of capital investment
- Waste/cleaning increases due to COVID-19
- Legislative changes
- Operating cost increases and impact on capital
LOOKING AHEAD 2022

- Completion of backflow compliance
- Enhanced accessibility in parks
- Shoreline protection (DMAF)
- Sam Lawrence Park (Phase 1 construction)
- HAAA construction
- Wm Connell – Winter Wonderland Phase 1
- Mountain Bike Study
- Albion Falls viewing platform (design)
- 12-15 new playground replacements
- Valley Park skateboard park

2023 - 2025

- Alexander Park skateboard park
- Brightside Park construction
- Mountain Brow Trail implementation
- Trails Master plan update
2021 KEY METRICS

• 17,908 trees planted
• 1,316 calls for storm damage relating to trees
• 23,020 requests for service
• 1,948 development applications reviewed
• 2,162 Emerald Ash Borer planned tree removals (Year 9 of 10)
• 1,762 trees given through the Free Tree Giveaways

PROJECT HIGHLIGHTS

• COVID-19 staff redeployments
• GIS Tree Inventory project
• Online forestry education program for grade 3 students

Forestry truck with new wrap
CURRENT TRENDS & ISSUES

- Focus on tree maintenance program
- Lymantria dispar dispar (LDD Moth) aerial control program
- Increased tree planting, final year of Emerald Ash Borer program funding
- Tree canopy equity strategy
- Storm damage response and costs
  - Climate emergency
  - Increase intensity / frequency
- Increased development / intensification
  - Impacts to tree canopy
LOOKING AHEAD 2022-2025

- Improve GIS & spatial tree inventory
- Urban Forest Strategy
- Urban forest health monitoring for new, existing, and forecasted pests and diseases
- Complete Emerald Ash Borer management by 2023
  - Tree removals
  - Tree replacements
- Strengthen relationships with Conservation Authorities and local/ provincial NGO’s for tree planting initiatives
2021 KEY METRICS & HIGHLIGHTS

- Grew 273,208 plants
- Planted and maintained:
  - 72 roundabouts
  - 9 business improvement areas (BIAs)
  - 571 floral planters
  - 348 floral traffic islands
  - 669 hanging baskets
  - 131 perennial gardens
  - 68 civic buildings
- 27,978 visitors to the Gage Park Tropical Greenhouse

- 12,123 visitors to the 2021 Mum Show
- 27 Hamilton in Bloom Traffic island sponsors
- 266 White Trillium Awards
- 14 Pink Trillium Awards
2021 SPECIAL HIGHLIGHTS

- Topiary at City Hall (Mickey Mantis)
- Modified Mum Show due to pandemic
- Public feedback about annual beautification
- Revamped digital Trillium Awards program

Sam Lawrence Park rock bed
Hayward Park naturalized bed
York Boulevard
CURRENT TRENDS & ISSUES

• Requests for planters to support pedestrian, bicycle and traffic calming
• Aging irrigation systems in older traffic island beds
• Compliance with backflow prevention by-law in traffic islands
LOOKING AHEAD 2022-2025

- Continue lifecycle replacements of horticultural related infrastructure such as irrigation systems
- Enhanced programming for the Tropical Greenhouse
- Ward funded traffic island conversions
2021 KEY METRICS

- 1,244 internments
- 124 columbarium niche sales
- $1,360,673 pre-need sales

PROJECT HIGHLIGHTS

- Parkside Cemetery
- Cholera bed redevelopment
- Digitization of cemetery documents
- GIS inventory and assessment of cemetery paving, drinking fountains and commemorative features
CURRENT TRENDS & ISSUES

• Potential for private cemeteries to be assigned to the municipality to operate and maintain
• Cemeteries as parkland and increased visitors
• Aging infrastructure and lack of capital reinvestment

Woodland Cemetery pollinators

Columbarium
LOOKING AHEAD 2022

- Continue to implement cemeteries branding and marketing plan developed in 2018/19
- Sales at Parkside Cemetery
- Design and construction for green burial at Mount Hamilton Cemetery
- Pet burial section at Mount Hamilton

2023 - 2025

- Improvements at Mountview Hamilton

Example of green burials wildflowers
2021 METRICS & HIGHLIGHTS

+27 million waste pickups per year
225,300 tonnes of residential waste

43% Residential Waste Diversion Achieved

1.6% 139,700 Landfill Tonnes
Residential garbage and residue from processing facility

39% 20,800 Tonnes
Green Cart materials

.5% 39,400 Recycling Tonnes
Materials sent to end markets from Blue Box program and Community Recycling Centres

3.7% 25,400 Tonnes
Leaf and Yard Waste

2021 METRICS & HIGHLIGHTS

WASTE

January 26, 2022
2021 HIGHLIGHTS

• New contracts for waste collection and composting facility
• Increase in blue box curbside tagging and audits
  • Lower overall recycling contamination
• Seasonal yard waste curbside collection
  • No yard waste collections between Dec - Feb
• Project underway to increase the processing capacity at the CCF beyond current 20,000 MT cap
• Implementation of the new City of Hamilton Waste Requirements for Design of New Developments
• “Separate, Don’t Contaminate” ad campaign
CURRENT TRENDS & ISSUES

- Waste Free Ontario Act
  - Working with industry associations to prepare for transition, communicate future program change
- Managing an aging workforce and a work environment prone to injuries and absenteeism
- Plateaued diversion rates continue to threaten the life expectancy of the Glanbrook Landfill
  - Current 2046
- Processing capacity at the CCF is capped at 20,000 MT/year
LOOKING AHEAD 2022

• Route optimization / balancing of collection routes
• Strategy to ensure reduced contamination at waste facilities
• Blue box transition planning
• Waste audits and education to support multi-residential waste diversion

2023 - 2025

• Implementing “green fleet” program initiatives
• Investigating “administrative penalty system” for waste bylaw enforcement
• Looking at efficiencies at the transfer stations/CRCs with goal to expand
WATER, WASTEWATER & STORMWATER
2021 METRICS

- **78.87** billion litres of water treated
- **884** substandard water service line replacements
- **61,512** water samples tested
- **11** confirmed AWQI’s

PROJECT HIGHLIGHTS

- Water distribution system leak detection
- Drinking water advisory lifted in Lynden (Aug 5, 2021)
- City staff replacing public portion lead water service pipes
CURRENT TRENDS & ISSUES

• Increase in low chlorine adverse water quality incidents
• Contaminated soil removal at Kenilworth reservoir
• Increasing costs for water treatment chemicals

LOOKING AHEAD 2022-2025

• Water Treatment Plant Upgrades - Contract #2
• Pressure District 7 (Elfrida) Water Tower
• SCADA Cyber Security Program
• Alectra Utilities discontinuation of water billing services

Kenilworth Reservoir

Electrical power centre – Woodward Upgrades
2021 METRICS

- 80.3% wastewater treatment capacity
- 40,802 tonnes of biosolids processed on site
- 8 substantially completed projects
- 23 wastewater treatment bypasses
- 15 odour complaints at the Woodward WWTP

PROJECT HIGHLIGHTS

- Partnerships and contributions to SARS-CoV-2 testing in wastewater - University of Ottawa
- Continuous wastewater treatment plant effluent compliance
- AEGD pumping station upgrades
WASTEWATER

CURRENT TRENDS & ISSUES

- Dundas wastewater treatment plant upgrades funding
- Increased # of Woodward wastewater treatment plant bypasses in 2021
- Biosolids facility odour complaints

LOOKING AHEAD 2022-2025

- Woodward Upgrades program completion
- Real time control phase 2 construction
- CSO outfall monitoring enhancement
- Design and tendering phase for Woodward wastewater treatment plant capacity expansion

Wastewater pumping stations at the WWWTP
2021 METRICS

- 512 emergency spill responses
- 2,249 rain barrels sold
- 80 downspout disconnections
- 440 back water valves installed
- 24,652 tests on environmental samples

PROJECT HIGHLIGHTS

- Chedoke Creek and Cootes Paradise short term direct measures
- Surface water quality program
- Protective Plumbing Program enhancements (downspout disconnection grant)
CURRENT TRENDS & ISSUES

- Stormwater source control enforcement
- Chedoke Creek dredge plan extension
- Invasive species in watercourses and stormwater facilities
- Backlog of stormwater facility dredging
- MECP consolidated linear ECAs

LOOKING AHEAD 2022-2025

- Flooding and drainage master servicing study workplan
- Chedoke Creek and Cootes Paradise workplans
- Development of comprehensive stormwater system hydraulic model
2021 KEY METRICS

- 57 lane km roads rehabilitated
- 67 lane km rural roads rehabilitated
- 99 km mainline sewers inspected
- 14 km sewers rehabilitated
- 6 km watermains inspected
- 5 km watermains rehabilitated
- 226 bridges inspected
- 14 bridges rehabilitated
- 22,000 catch basins inspected and cleaned
- 3.2 kms sidewalk replaced
- 11.11 kms sidewalks repaired

PROJECT HIGHLIGHTS

- Bell Project
  - Total Homes Permitted: 43,000
  - Total Metres Permitted: 298,000m
  - Total Approved Permits: 138

- Road cut restorations
  - Total road cut locations: 2,800
  - Total road cut value: $6.1M
INFRASTRUCTURE REHABILITATION

CURRENT TRENDS & ISSUES

- Backlog of structural rehabilitations
- Lead service replacement
- Implementing complete, liveable, better streets

Mudd Street Bridge

Example: Complete, liveable, better streets
INFRASTRUCTURE REHABILITATION

LOOKING AHEAD 2022

Critical watermain lining
• Beach Road
• Kenilworth Tunnel
• Rosedale Park Red Hill Creek Crossing

Critical sewer main lining
• Satellite City
• Inverness Avenue East

Road rehab projects
• Barton Street
• Scenic Drive
• Nebo Road
• Kenilworth Avenue
• Wilson Street
2021 KEY METRICS

• 17,200 catch basins cleaned
• 55 cross road culverts replaced
• 68 lane km of rural road resurfaced
• 7,291 pothole sites repaired
• 49 guide rail locations repaired
• 6,825 km of protected bike lanes installed
• 4,357 traffic signs repaired/replaced
• 9,095 MMS sidewalk deficiencies reported
• 9,581 Non MMS sidewalk deficiencies reported
• 3,207 sidewalk deficiencies repaired
• 22 lane kms of sidewalks repaired

PROJECT HIGHLIGHTS

• Inventory audits
• LINC Annual Spring Maintenance
• Red Hill Valley Parkway Operational Plan
CURRENT TRENDS & ISSUES

- Operational impacts from growth capital projects
- Increased roadway repair costs
- Improved inventory controls resulting from audits
- Expanding and enhancing cycling infrastructure

Hunter St. bike lanes

Safari Road – localized flooding

Operations staff

Traffic signal repairs
LOOKING AHEAD 2022

- Enhanced winter sidewalk snow clearing
- Crack sealing program

LOOKING AHEAD 2023 - 2025

- Pavement preservation strategy
- Transportation Operational Plan
- Optimization of maintenance and operations activities
ROADWAY SAFETY
2021 KEY METRICS

- 159 new speed cushion locations
- 640 community safety zone locations reviewed
- 15 automated speed enforcement pilot locations
- 16 new pedestrian crossovers installed
- 12 traffic signals installed/rehabilitated
- 48 neighbourhoods added to Vision Zero speed reduction program
- 33% reduction in total collisions

PROJECT HIGHLIGHTS

- Vision Zero Action Plan & Dashboard
- Intelligent Transportation System Strategy
- Cycling facility design and implementation
- Ward 8, 14 & 3 complete street studies
CURRENT TRENDS & ISSUES

- 50% reduction in vehicular traffic volumes – COVID-19 impact
- Collisions involving vulnerable road users regularly result in injury
  - Pedestrian injuries - 90.7% of the time
  - Cyclist injuries - 78.7% of the time
LOOKING AHEAD 2022

- Automated speed enforcement program
- Neighbourhood speed reduction project
- Roadway safety program examination

LOOKING AHEAD 2023 - 2025

- Implementing complete, liveable, better streets
- Administrative Monetary Penalty System (AMPS) integration for Red Light Camera and Automated Speed Enforcement programs
2021 KEY METRICS

- **885,146** service hours (90% of budgeted hours as of November 30)
- **88%** on-time performance
- **80,571** kms between preventable collisions
- **6,837** kms between mechanical failures

PROJECT HIGHLIGHTS

- Introduced the first RNG fueled bus
- HSR myRide expands the service coverage in Waterdown and increases the number of bus stops
- 36 shelters along Main/King/Queenston are now solar shelters
CURRENT TRENDS & ISSUES

- Continued need for investments and funding for both operating and capital

- COVID-19 impacts and continued importance of safety measures for staff and customers alike

- Post pandemic ridership strategy – welcoming customers back to transit and encouraging new customers to try transit
LOOKING AHEAD 2022

- Ridership recovery through service excellence
- Year 6 of 10 Year Local Transit Strategy
- Specialized accessible transportation review through fleet strategy

2023 - 2025

- Network redesign
- Years 7-10 Local Transit Strategy
- Moving towards zero emissions
2021 METRICS & HIGHLIGHTS

• 8 electric vehicles
• 32.4% commercial vehicle operator's registration (CVOR) rating
  • Winter 2019 – CVOR at 84.5%
• Green fleet electric vehicle conversion
• Green fleet strategy expected to reduce GHG’s by 18.4% by 2024
• Funding grant approval from Natural Resource Canada (NRCan) for electric vehicle infrastructure for $300,000
CURRENT TRENDS & ISSUES

- Electric vehicle purchases will require more charging stations
- Yard study impacts to fleet maintenance operations locations and fuel site infrastructure
- Converting all diesel vehicles by 2030
- Increase in fuel costs
LOOKING AHEAD 2022-2025

- Green Fleet Strategy Implementation:
  - 3 year forecast of 89 vehicles that can be replaced with battery electric vehicles
  - 49 electric charging stations to be installed
  - A pilot on the use of biodiesel to identify highest blend possible
  - Eco Driving and Anti-Idling awareness campaigns and training for all fleet operators
- Conversion of 10 waste packers from diesel to natural gas
2021 KEY METRICS

• 35% energy intensity reduction in corporate buildings since 2005
• 42% GHG emission reductions since 2005
• 21,800 MWH electricity produced (Woodward and Glanbrook)

PROJECT HIGHLIGHTS

• Completing Energy and GHG reduction projects
• Global adjustment benefit
• Energy efficient upgrades to 3 pools and domestic water heating
• Latest version of Corporate Energy & Sustainability Policy approved
CURRENT TRENDS & ISSUES

- Council declared Climate Change Emergency
- Investigation of actions to achieve net-zero carbon emissions by 2050
- Community Energy & Emissions Plan
- Carbon tax increases impacting natural gas and fuels (diesel and gasoline)
- Volatility of utilities and commodities
  - Volatility especially around extreme weather events
LOOKING AHEAD 2022-2025

• Focus on pathway to Net Zero in Corporate buildings by 2050
• Renewable energy opportunities (solar, renewable, natural gas)
  • Corporate sites
  • Hamilton Renewable Power operations
• Stakeholder roles on:
  • Community Energy & Emission Plan
  • Corporate Climate Change Task Force
  • Public Works Resiliency Plans
2021 KEY METRICS & HIGHLIGHTS

- **44** mass gatherings in public spaces
- **85%** decrease in the number of trespass to properties from 2020
- **116,013** security guard service hours:
  - **21%** are directly related to COVID services
  - **14%** directly related to services on-demand
- **1,400+** service calls responded to

LOOKING AHEAD

- Security trends continue to change
- Creation of the Security Staff Advisory Committee
- Security Awareness Training
- Site security upgrades and perimeter fencing at the HSR Mountain Transit Centre

SECURITY AWARENESS TRAINING
2021 KEY METRICS

- **20,624** preventative maintenance work orders
- **22,325** on-demand work orders
- **42,949** total work orders issued

PROJECT HIGHLIGHTS

- 2nd year of operation of 125 Barton St. Facility Yard to a centralized COVID-19 Supply Distribution Warehouse
- 108th Grey Cup @ Tim Hortons Field
CURRENT TRENDS & ISSUES

- Facility condition index (FCI) **9.45%** overall rating fair state of repair
- On going review of aging infrastructure including roof replacements and mechanical upgrades/replacements

Overall **Facilities Condition Index (FCI)** across 500+ facilities is **9.45% (Fair)**
LOOKING AHEAD 2022-2025

- Continue improving indoor air quality initiatives through air purification systems
- Priority roof replacements and mechanical upgrades

Mount Hope library roof

Inch Park arena roof
Quality Management
PUBLIC WORKS QUALITY MANAGEMENT SYSTEM

Assessment Tool for International Standards Organization (ISO) Alignment

Demonstrates commitment to quality and creates awareness of foundational quality principles.
2021 KEY HIGHLIGHTS

- Departmental Training Framework
- Departmental Internal Audit Program
- PW QMS Non-Conformance Process
- PW QMS Document Management for Emergency Response
Departmental audit program launch
Transfer of assets process implementation
Quality objectives identification
Risk management process implementation
Management review process developed
Change management
Vendor management
PERFORMANCE MEASUREMENT
PERFORMANCE MEASUREMENT PROGRAM

- **Introduction of Data Collection Web Tool - BIMA**
  - 2018
  - Division and Sectional scorecards

- **Dashboard and Visualization**
  - 2019

- **Include Levels of Service to align with Corporate Asset Management Program**
  - 2020
  - Dashboard & Visualization
  - 2021
  - 2022
## PERFORMANCE MEASUREMENT PROGRAM

### HIGH-PERFORMING KPIs

As of January 7, 2022

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<td>Safety - CVOR</td>
<td>Average CVOR (Commercial Vehicle Operator's Rating) Safety Rating (%)</td>
<td>49.9%</td>
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<td>Purchasing Policies</td>
<td>Total number of Policy 19 Occurrences</td>
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<td>Traffic – Street Light Inspections</td>
<td>% street light inspections completed to MMS standards (4443)</td>
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## OPPORTUNITIES FOR IMPROVEMENT KPIs

As of January 7, 2022

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<td>Safety - Lost time</td>
<td>Number of days lost as a result of workplace accident</td>
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2021 HIGHLIGHTS

- Supported Corporate Community Energy & Emissions Plan and Climate Impact Adaptation Plan
- Completed climate actions inventory for Public Works – identified 275 initiatives related to climate change adaptation and mitigation
- Partnered with 5 GTHA municipalities to complete an adaptation pilot to analyze acute and chronic climate related stressors on vertical and linear infrastructure
- Completed 3 student based CityLab projects
- Completed a framework for an inaugural climate education program
LOOKING AHEAD 2022

- First climate lens
- Completion of first annual resiliency assessment
- Complete Public Works climate strategy that aligns with Community Energy & Emissions Plan and Climate Impact Adaptation Plan
- Public Works second climate summit

CLIMATE CHANGE ACTION

2023 - 2025

- Launch of the innovation incubator and climate futures program
CLIMATE CHANGE PROJECTS

- Hamilton Parks Master Plan
- Tree Planting Program
- Cycling Infrastructure
- Landfill Gas (LFG) collection system expansion (Stage 3)
- CNG Vehicles for waste collection
- Waste collection anti-idling campaign
- Flooding and drainage improvement framework servicing review
- Stormwater modelling to support climate adaptation
- Beach Blvd environmental assessment
CLIMATE CHANGE ACTION

CLIMATE CHANGE PROJECTS

Hunter Street cycling infrastructure

Beach Boulevard

York Boulevard cycling infrastructure

Bayfront Park
CONTINUOUS IMPROVEMENT
# CONTINUOUS IMPROVEMENT

## 2021 HIGHLIGHTS

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<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Increase</th>
<th>Since Program Inception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideas Generated</td>
<td>74</td>
<td>517%</td>
<td>488</td>
</tr>
<tr>
<td>Projects Started</td>
<td>187</td>
<td>105%</td>
<td>580</td>
</tr>
<tr>
<td>Projects Completed</td>
<td>170</td>
<td>89%</td>
<td>441</td>
</tr>
<tr>
<td>Kaizen Events</td>
<td>6</td>
<td>20%</td>
<td>41</td>
</tr>
<tr>
<td>Recovered Capacity</td>
<td>$1.2M</td>
<td>141%</td>
<td>$14.1M</td>
</tr>
<tr>
<td>Cost Reduction</td>
<td>$0</td>
<td></td>
<td>$1.7M</td>
</tr>
<tr>
<td>Cross - Dep / Cross Div. Collaboration</td>
<td>50</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Staff Involvement</td>
<td>850</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Green Belts Trained</td>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Assets provide services that contribute to our quality of life
What do we own?

Where is it?

What is it worth?

What condition is it in?

What needs to be done?

When does it need to be done by?
Asset management is a process used in decision-making.

It helps us care for the infrastructure that delivers valuable services to our community, in a way that:

- Considers service needs of our community
- Manages risks and opportunities
- Uses resources wisely

WHY IT MATTERS?

- A process
- A journey
- An approach
- A way of doing business
ASSET MANAGEMENT gives us the empirical evidence so we can…

- Do the right thing
- To the right asset
- At the right time
- For the right cost
WE NEED A SYSTEM THAT HELPS…

- Maintain the delivery of services
- Plan for the future
- Manage risk
- Budget smartly
Council needs information about asset performance, risk and cost to set direction.
In recent years, the discipline of Asset Management has evolved. Hamilton needs to catch up …

**THEN**
A focus on the implementation of managing asset activities (e.g. condition assessments).

**NOW**
All the activities and practices an organization applies to assets in order to achieve its strategic objectives.
• Desired levels of service will be achieved through the balance of cost, risk and performance.
• Prioritization of funds becomes critical in order to ensure the best balance is achieved.
• Must find the balance that delivers the greatest value to the City.
ASSET MANAGEMENT FRAMEWORK

ORGANIZATIONAL STRATEGIC PLAN
Long Term Sustainability, Strategic Plan, Official Plan, Long Term Financial Plan, Master Plans, and HR Plan

ASSET MANAGEMENT STRATEGY & PLANNING
Asset Management Policy, Strategy and Detailed Plans

ASSET MANAGEMENT DECISION MAKING
Level of Service, Regulations, Demand Analysis, Financial Reporting and Analysis, Lifecycle Management

ASSET KNOWLEDGE ENABLERS
Asset Registry, Condition Assessments, EAM, GIS, Document Processes, Performance Indicators, Financial Information, Decision Support

Customers, Legislation, Investors, Commercial Environment

Source: Institute of Asset Management
ONTARIO REGULATION 588/17 MANDATES

Asset Management Policy

Asset Management Plan for Core Assets
- Roads, Bridges, Water, Wastewater, Stormwater
- Current Levels of Service (LOS) with cost to maintain
- Expected Q2 2022

Asset Management Plan for Remaining Assets
- Current LOS with cost to maintain
- Gap analysis in progress

2019

JULY 1, 2022

JULY 1, 2024

JULY 1, 2025

Proposed LOS Completed

PUBLIC WORKS 2022 OPERATING BUDGET
JANUARY 26, 2022
Significant opportunity for improved asset management and higher quality service delivery with less cost.

Project has identified the opportunity to standardize 47 process flows across Public Works.
ACROSS PUBLIC WORKS

• Human Resources
  • Recruitment of skilled labour
  • Managing vacancies
  • Student hiring

• Shared Issues
  • COVID-19 impacts
  • Redeployments
  • Supply chain challenges
  • Rising construction costs
  • Inflationary pressures
  • Contract pressures
  • Coordination of funding opportunities (ICIP, DMAF)

• Shared Projects & Initiatives
  • Excess soils
  • LRT
  • Consolidated linear infrastructure
  • Environmental Compliance Approval (ECA)
  • Enterprise asset management
  • Project management standardization
  • Corporate asset management
  • Quality management
2022 Gross Capital and Operating Budgets
$1.259 billion

Funded by

- Revenue $116.9M
- Tax Levy $279.7M

GROSS TAX OPERATING $396.6M
RATE OPERATING $257.9M (FCS21088/Nov. 24)
RATE CAPITAL $310.4M (FCS21088/Nov. 24)
TAX CAPITAL $294.1M (FCS21096/Dec. 15)
**ORGANIZATIONAL CHART**

- **General Manager** (1.00 FTE)
- **Administration** (1.00 FTE)
- **Chief Road Official***
- **Director Corporate Asset Management*** (5.30 FTE)

**Permanent Complement (FTE)**

<table>
<thead>
<tr>
<th></th>
<th>Management</th>
<th>Other</th>
<th>Total</th>
<th>Staff to Mgt. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>33.00</td>
<td>1980.35</td>
<td>2013.35</td>
<td>60.01:1</td>
</tr>
<tr>
<td>2022</td>
<td>33.00</td>
<td>2023.61</td>
<td>2056.61</td>
<td>61.32:1</td>
</tr>
<tr>
<td>Change</td>
<td>0.00</td>
<td>43.26</td>
<td>43.26</td>
<td></td>
</tr>
</tbody>
</table>

- * 3.0 Director positions are excluded from the 2022 Budgeted Complement count. The positions are currently temporary and not counted as part of the permanent FTE Complement. If positions were included the Staff to Mgt Ratio would be 56.21:1
- ** Complement excludes Hamilton Water
## 2022 OPERATING BUDGET BY DIVISION

<table>
<thead>
<tr>
<th>Division</th>
<th>2021 Restated Budget Net</th>
<th>2022 Preliminary Budget Gross</th>
<th>2022 Preliminary Budget Net</th>
<th>2022 vs 2021 Net Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>PW-General Administration</td>
<td>634,870</td>
<td>658,900</td>
<td>658,900</td>
<td>24,030</td>
</tr>
<tr>
<td>Energy Fleet and Facilities</td>
<td>13,273,690</td>
<td>21,946,730</td>
<td>14,276,080</td>
<td>1,002,390</td>
</tr>
<tr>
<td>Engineering Services</td>
<td>-</td>
<td>21,743,950</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental Services</td>
<td>44,240,900</td>
<td>48,556,680</td>
<td>45,582,310</td>
<td>1,341,410</td>
</tr>
<tr>
<td>Waste Management</td>
<td>44,104,610</td>
<td>62,013,470</td>
<td>46,944,820</td>
<td>2,840,210</td>
</tr>
<tr>
<td>Transit</td>
<td>80,834,700</td>
<td>150,197,660</td>
<td>87,972,010</td>
<td>7,137,310</td>
</tr>
<tr>
<td>Transportation Operations &amp; Maintenance</td>
<td>83,485,680</td>
<td>91,441,190</td>
<td>84,234,120</td>
<td>748,440</td>
</tr>
<tr>
<td><strong>Total Public Works</strong></td>
<td><strong>266,574,450</strong></td>
<td><strong>396,558,580</strong></td>
<td><strong>279,668,240</strong></td>
<td><strong>13,093,790</strong></td>
</tr>
</tbody>
</table>

**Proposed Amendment - Waste Management: Blue Box Municipal Funding Allocation**

(573,940) (0.2%)

**Total Public Works - Less Proposed Amendment**

12,519,850 4.7%
## 2022 Key Budget Drivers

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transit</strong></td>
<td>Year 5 Annualization + Year 6 of the 10 Year Local Transit Strategy</td>
<td>$4,144,000</td>
</tr>
<tr>
<td></td>
<td>PRESTO Agreement</td>
<td>$381,000</td>
</tr>
<tr>
<td></td>
<td>Transit Fleet Reserve Inflationary Increase</td>
<td>$230,000</td>
</tr>
<tr>
<td><strong>Effm</strong></td>
<td>Tim Hortons Field Pressures</td>
<td>$487,000</td>
</tr>
<tr>
<td><strong>Waste Mgmt</strong></td>
<td>Curbside Waste Collection Contract</td>
<td>$1,969,250</td>
</tr>
<tr>
<td></td>
<td>Materials Recycling Facility Contract</td>
<td>$246,380</td>
</tr>
<tr>
<td></td>
<td>Hazardous &amp; Speciality Products Regulation Subsidy Reduction</td>
<td>$202,000</td>
</tr>
<tr>
<td></td>
<td>Transfer Station / Community Recycling Centres (TS / CRC) Contract</td>
<td>$293,420</td>
</tr>
<tr>
<td></td>
<td>TS / CRC Tipping Fee, Municipal Blue Box Funding &amp; Recycling Commodities Revenue Adjustment Increases</td>
<td>$(1,084,610)</td>
</tr>
<tr>
<td><strong>Tom</strong></td>
<td>Winter Program Adjustment Decrease</td>
<td>$(1,450,000)</td>
</tr>
<tr>
<td></td>
<td>Sidewalk Snow Clearing (Option 2A total incremental cost is $2.34M. 2022 Budget $936K {Nov, Dec} and 2023 Budget $1.404M {Jan, Feb, Mar})</td>
<td>$936,000</td>
</tr>
<tr>
<td></td>
<td>Catch Basin Cleaning, Grass Cutting &amp; Phragmite Control Contract Pressures</td>
<td>$325,000</td>
</tr>
<tr>
<td><strong>PW - All</strong></td>
<td>Employee Related Costs - Excludes ERC related to Transit Strategy</td>
<td>$3,790,320</td>
</tr>
<tr>
<td></td>
<td>Fuel (Budgeted at 1.10/L, pressure $750K partially mitigated by tax stabilization reserve)</td>
<td>$375,100</td>
</tr>
<tr>
<td></td>
<td>Insurance and Vehicle Insurance Charges</td>
<td>$663,300</td>
</tr>
</tbody>
</table>

( ) Denotes budget savings / revenue increases
### Multi-Year Outlook

<table>
<thead>
<tr>
<th>Budget</th>
<th>% Change from 2022</th>
<th>Budget</th>
<th>% Change from 2023</th>
<th>Budget</th>
<th>% Change from 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Public Works - Tax Net Levy</td>
<td>292,656,810</td>
<td>4.6%</td>
<td>303,918,900</td>
<td>3.8%</td>
<td>315,676,630</td>
</tr>
</tbody>
</table>

#### Key Transit Drivers:

- **DARTS Ridership Growth**
  - 2023: -
  - 2024: 1,820,000
  - 2025: 1,950,000

- **10 Year Transit Strategy (Net)**
  - 2023: 3,315,000
  - 2024: 3,085,000
  - 2025: 3,577,000

- **PRESTO Maintenance Agreement**
  - 2023: 189,000
  - 2024: 208,000
  - 2025: 187,000

- **Transit Fleet Reserve Inflationary Increase**
  - 2023: 252,800
  - 2024: 276,490
  - 2025: 302,240

#### Key Waste Management Drivers:

- **Various Contractual Agreements**
  - 2023: 1,153,900
  - 2024: 1,297,590
  - 2025: 1,241,630

#### Key Transportation Operations & Maintenance Drivers:

- **Sidewalk Snow Clearing**
  - 2023: 1,404,000
  - 2024: 46,800
  - 2025: 47,740
2022 PRELIMINARY TAX OPERATING BUDGET - Divisions
ENERGY, FLEET & FACILITIES MANAGEMENT

DIRECTOR
Rom D’Angelo
(1.00 FTE)

Administration
(1.00 FTE)

SPM Continuous Improvement
(1.00 FTE)

Central Fleet
(57.00 FTE)

Energy Initiatives
(7.00 FTE)

Facility Planning & Business Solutions
(18.66 FTE)

Facility Operations & Maintenance
(56.25 FTE)

Sports & Entertainment Facilities
(20.30 FTE)

Strategic Planning Capital & Compliance
(20.0 FTE)

### Permanent Complement (FTE)

<table>
<thead>
<tr>
<th></th>
<th>Management</th>
<th>Other</th>
<th>Total</th>
<th>Staff to Mgmt. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>7.00</td>
<td>174.95</td>
<td>181.95</td>
<td>24.99:1</td>
</tr>
<tr>
<td>2022</td>
<td>7.00</td>
<td>175.21</td>
<td>182.21</td>
<td>25.03:1</td>
</tr>
<tr>
<td>Change</td>
<td>0.00</td>
<td>0.26</td>
<td>0.26</td>
<td></td>
</tr>
</tbody>
</table>
# Energy Fleet and Facilities

<table>
<thead>
<tr>
<th></th>
<th>2021 Restated Budget Net</th>
<th>2022 Preliminary Budget Gross</th>
<th>2022 Preliminary Budget Net</th>
<th>Change $</th>
<th>Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet Services</td>
<td>62,630</td>
<td>1,652,400</td>
<td>147,780</td>
<td>85,150</td>
<td>136.0%</td>
</tr>
<tr>
<td>Corporate Facility Ops &amp; Tech</td>
<td>2,000,660</td>
<td>2,964,940</td>
<td>1,813,140</td>
<td>(187,520)</td>
<td>(9.4)%</td>
</tr>
<tr>
<td>Facilities Planning and Business Solutions</td>
<td>948,010</td>
<td>1,807,310</td>
<td>1,218,840</td>
<td>270,830</td>
<td>28.6%</td>
</tr>
<tr>
<td>Community Facility Ops &amp; Tech Serv</td>
<td>6,609,990</td>
<td>6,572,820</td>
<td>6,551,310</td>
<td>(58,680)</td>
<td>(0.9)%</td>
</tr>
<tr>
<td>Sports &amp; Entertainment Facilities</td>
<td>3,097,410</td>
<td>6,710,860</td>
<td>3,696,350</td>
<td>598,940</td>
<td>19.3%</td>
</tr>
<tr>
<td>Director EFF</td>
<td>312,560</td>
<td>488,750</td>
<td>465,550</td>
<td>152,990</td>
<td>48.9%</td>
</tr>
<tr>
<td>Energy Initiatives</td>
<td>0</td>
<td>1,366,530</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Strategic Plan &amp; Capital Compliance</td>
<td>242,430</td>
<td>383,110</td>
<td>383,110</td>
<td>140,680</td>
<td>58.0%</td>
</tr>
<tr>
<td><strong>Total Energy Fleet and Facilities</strong></td>
<td><strong>13,273,690</strong></td>
<td><strong>21,946,720</strong></td>
<td><strong>14,276,080</strong></td>
<td><strong>1,002,390</strong></td>
<td><strong>7.6%</strong></td>
</tr>
</tbody>
</table>
## 2022 ENERGY, FLEET & FACILITIES MANAGEMENT
### BUDGET DRIVERS

<table>
<thead>
<tr>
<th>Item</th>
<th>Impact ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim Hortons Field Contract Pressures</td>
<td>$487</td>
</tr>
<tr>
<td>Contract Pressures Facilities</td>
<td>$148</td>
</tr>
<tr>
<td>Employee Related Costs</td>
<td>$535</td>
</tr>
<tr>
<td>Recoveries from Capital</td>
<td>$404</td>
</tr>
<tr>
<td>Fuel (Budgeted at 1.10/L, pressure $101K partially mitigated by tax stabilization reserve)</td>
<td>$79</td>
</tr>
</tbody>
</table>

( ) Denotes budget savings / revenue increases
ENGINERERING SERVICES

**DIRECTOR**
Vacant
(1.00 FTE)

**Administration**
(1.00 FTE)

**SPM Continuous Improvement**
(1.00 FTE)

**Asset Management**
(25.00 FTE)

**Construction**
(33.67 FTE)

**Design**
(25.66 FTE)

**Geomatics & Corridor Management**
(34.00 FTE)

**Manager Materials & Specifications**
(1.00 FTE)

**Waterfront Development**
(1.00 FTE)

### Permanent Complement (FTE)

<table>
<thead>
<tr>
<th></th>
<th>Management</th>
<th>Other</th>
<th>Total</th>
<th>Staff to Mgt. Ratio**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2021</strong></td>
<td>6.00</td>
<td>117.33</td>
<td>123.33</td>
<td>19.56:1</td>
</tr>
<tr>
<td><strong>2022</strong></td>
<td>6.00</td>
<td>117.33</td>
<td>123.33</td>
<td>19.56:1</td>
</tr>
<tr>
<td><strong>Change</strong></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

* 1.0 Manager position is excluded from the 2022 Budgeted Complement count. The position is currently temporary and not counted as part of the permanent FTE Complement. If position was included the Staff to Mgt Ratio would be 16.76:1
## 2022 OPERATING BUDGET
### ENGINEERING SERVICES

#### Engineering Services

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Change $</td>
</tr>
<tr>
<td>Asset Management</td>
<td>0</td>
<td>3,764,670</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Construction</td>
<td>0</td>
<td>4,822,430</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Design Services</td>
<td>0</td>
<td>3,296,880</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Director of Engineering Services</td>
<td>0</td>
<td>2,231,730</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Geomatics and Corridor Management</td>
<td>0</td>
<td>7,255,950</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Waterfront Development</td>
<td>0</td>
<td>372,290</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Engineering Services</strong></td>
<td><strong>0</strong></td>
<td><strong>21,743,950</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

- Costs are mainly recovered from capital
## Environmental Services

<table>
<thead>
<tr>
<th></th>
<th>2021</th>
<th>2022 Preliminary Budget Net vs. 2021 Restated Budget Net</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business Programs</td>
<td></td>
</tr>
<tr>
<td>2021 Restated Budget Net</td>
<td>994,170</td>
<td>1,187,170</td>
</tr>
<tr>
<td>2022 Preliminary Budget Gross</td>
<td>1,187,170</td>
<td>1,187,170</td>
</tr>
<tr>
<td>2022 Preliminary Budget Net</td>
<td>1,187,170</td>
<td>1,187,170</td>
</tr>
<tr>
<td></td>
<td>Director Environ Services</td>
<td></td>
</tr>
<tr>
<td>2021 Restated Budget Net</td>
<td>(551,070)</td>
<td>(551,070)</td>
</tr>
<tr>
<td>2022 Preliminary Budget Gross</td>
<td>(551,070)</td>
<td>(551,070)</td>
</tr>
<tr>
<td>2022 Preliminary Budget Net</td>
<td>(551,070)</td>
<td>(551,070)</td>
</tr>
<tr>
<td></td>
<td>Forestry &amp; Horticulture</td>
<td></td>
</tr>
<tr>
<td>2021 Restated Budget Net</td>
<td>14,175,850</td>
<td>14,852,830</td>
</tr>
<tr>
<td>2022 Preliminary Budget Gross</td>
<td>14,852,830</td>
<td>14,399,710</td>
</tr>
<tr>
<td>2022 Preliminary Budget Net</td>
<td>14,399,710</td>
<td>14,399,710</td>
</tr>
<tr>
<td></td>
<td>Landscape &amp; Architectural Serv</td>
<td></td>
</tr>
<tr>
<td>2021 Restated Budget Net</td>
<td>119,590</td>
<td>274,350</td>
</tr>
<tr>
<td>2022 Preliminary Budget Gross</td>
<td>274,350</td>
<td>274,350</td>
</tr>
<tr>
<td>2022 Preliminary Budget Net</td>
<td>274,350</td>
<td>274,350</td>
</tr>
<tr>
<td></td>
<td>Parks &amp; Cemeteries</td>
<td></td>
</tr>
<tr>
<td>2021 Restated Budget Net</td>
<td>29,501,290</td>
<td>32,793,400</td>
</tr>
<tr>
<td>2022 Preliminary Budget Gross</td>
<td>32,793,400</td>
<td>30,272,150</td>
</tr>
<tr>
<td>2022 Preliminary Budget Net</td>
<td>30,272,150</td>
<td>30,272,150</td>
</tr>
<tr>
<td><strong>Total Environmental Services</strong></td>
<td>44,239,830</td>
<td>48,556,680</td>
</tr>
</tbody>
</table>
## 2022 ENVIRONMENTAL SERVICES
### BUDGET DRIVERS

<table>
<thead>
<tr>
<th>Item</th>
<th>Impact ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Related Costs</td>
<td>$985</td>
</tr>
<tr>
<td>Fuel (Budgeted at 1.10/L, pressure $65K partially mitigated by tax stabilization reserve)</td>
<td>$30</td>
</tr>
</tbody>
</table>

( ) Denotes budget savings / revenue increases
WASTE MANAGEMENT

**DIRECTOR\(^*\)**
Angela Storey

**Administration\(^*\)**

**Manager Waste Policy & Planning\(^*\)**
(11.60 FTE)

**SPM Continuous Improvement\(^*\)**

**Waste Collections**
(92.41 FTE)

**Recycling & Waste Disposal**
(13.00 FTE)

<table>
<thead>
<tr>
<th>Permanent Complement (FTE)</th>
<th>Management</th>
<th>Other</th>
<th>Total</th>
<th>Staff to Mgt. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2021</strong></td>
<td>2.00</td>
<td>115.01</td>
<td>117.01</td>
<td>57.51:1</td>
</tr>
<tr>
<td><strong>2022</strong></td>
<td>2.00</td>
<td>115.01</td>
<td>117.01</td>
<td>57.51:1</td>
</tr>
<tr>
<td><strong>Change</strong></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

* * 4.0 positions are excluded from the 2022 Budgeted Complement count. The positions are currently temporary and not counted as part of the permanent FTE Complement. If Management positions were included the Staff to Mgt Ratio would be 28.75:1
### Waste Management

<table>
<thead>
<tr>
<th>Category</th>
<th>2021 Restated Budget Net</th>
<th>2022 Preliminary Budget Gross</th>
<th>2022 Preliminary Budget Net</th>
<th>Change $</th>
<th>Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recycling &amp; Waste Disposal</td>
<td>6,944,210</td>
<td>22,452,140</td>
<td>7,431,960</td>
<td>487,750</td>
<td>7.0%</td>
</tr>
<tr>
<td>Waste Collections</td>
<td>35,764,650</td>
<td>38,100,010</td>
<td>38,065,080</td>
<td>2,300,430</td>
<td>6.4%</td>
</tr>
<tr>
<td>Waste Policy &amp; Planning</td>
<td>1,545,750</td>
<td>1,611,330</td>
<td>1,597,790</td>
<td>52,040</td>
<td>3.4%</td>
</tr>
<tr>
<td>Director Waste</td>
<td>(150,000)</td>
<td>(150,000)</td>
<td>(150,000)</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total Waste Management</strong></td>
<td><strong>44,104,610</strong></td>
<td><strong>62,013,480</strong></td>
<td><strong>46,944,830</strong></td>
<td><strong>2,840,220</strong></td>
<td><strong>6.4%</strong></td>
</tr>
</tbody>
</table>

**Proposed Amendment - Blue Box Municipal Funding Allocation**

|                              |                          |                               |                          | (573,940) | (1.3)%   |

**Total Waste Management - Less Proposed Amendment**

|                              |                          |                               |                          | 2,266,280  | 5.1%     |
## 2022 Waste Management Budget Drivers

<table>
<thead>
<tr>
<th>Item</th>
<th>Impact ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curbside Waste Collection Contract</td>
<td>$1,969</td>
</tr>
<tr>
<td>Transfer Station / Community Recycling Centres (TS / CRC) Contract</td>
<td>$293</td>
</tr>
<tr>
<td>Materials Recycling Facility Contract</td>
<td>$246</td>
</tr>
<tr>
<td>Hazardous &amp; Specialty Products Regulation Subsidy Reduction</td>
<td>$202</td>
</tr>
<tr>
<td>Fuel (Budgeted at 1.10/L, pressure $65K partially mitigated by tax stabilization reserve)</td>
<td>$30</td>
</tr>
<tr>
<td>Employee Related Costs</td>
<td>$131</td>
</tr>
<tr>
<td>TS / CRC Tipping Fee &amp; Recycling Commodities Revenue Adjustment Increases</td>
<td>($511)</td>
</tr>
<tr>
<td>Increased Blue Box Municipal Funding Allocation</td>
<td>($574)</td>
</tr>
</tbody>
</table>

( ) Denotes budget savings / revenue increases
TRANSPORTATION OPERATIONS & MAINTENANCE

DIRECTOR
Mike Field
(1.00 FTE)

Administration
(1.00 FTE)

SPM Continuous
Improvement
(1.00 FTE)

Roadway
Maintenance
(273.32 FTE)

Business
Initiatives
(40.09 FTE)

Transportation
Operations
(90.30 FTE)

<table>
<thead>
<tr>
<th>Permanent Complement (FTE)</th>
<th>Management</th>
<th>Other</th>
<th>Total</th>
<th>Staff to Mgt. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>4.00</td>
<td>402.71</td>
<td>406.71</td>
<td>100.68:1</td>
</tr>
<tr>
<td>2022</td>
<td>4.00</td>
<td>402.71</td>
<td>406.71</td>
<td>100.68:1</td>
</tr>
<tr>
<td>Change</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>
## Transportation Operations & Maintenance

<table>
<thead>
<tr>
<th></th>
<th>2021 Restated Budget Net</th>
<th>2022 Preliminary Budget Gross</th>
<th>2022 Preliminary Budget Net</th>
<th>Change $</th>
<th>Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadway Maintenance</td>
<td>63,784,480</td>
<td>65,856,270</td>
<td>63,876,840</td>
<td>92,360</td>
<td>0.1%</td>
</tr>
<tr>
<td>Director – Trans Ops &amp; Mtce</td>
<td>(629,950)</td>
<td>(622,000)</td>
<td>(622,000)</td>
<td>7,950</td>
<td>1.3%</td>
</tr>
<tr>
<td>Transportation Operations</td>
<td>15,843,200</td>
<td>21,534,130</td>
<td>16,367,080</td>
<td>523,880</td>
<td>3.3%</td>
</tr>
<tr>
<td>Business Initiatives</td>
<td>4,487,950</td>
<td>4,672,780</td>
<td>4,612,190</td>
<td>124,240</td>
<td>2.8%</td>
</tr>
<tr>
<td><strong>Total Transportation Operations &amp; Maintenance</strong></td>
<td><strong>83,485,680</strong></td>
<td><strong>91,441,180</strong></td>
<td><strong>84,234,110</strong></td>
<td><strong>748,430</strong></td>
<td><strong>0.9%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2022 Preliminary Budget Net vs. 2021 Restated Budget Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change $</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>92,360</td>
</tr>
<tr>
<td>7,950</td>
</tr>
<tr>
<td>523,880</td>
</tr>
<tr>
<td>124,240</td>
</tr>
<tr>
<td>748,430</td>
</tr>
</tbody>
</table>
# 2022 Transportation Operations & Maintenance Budget Drivers

<table>
<thead>
<tr>
<th>Item</th>
<th>Impact ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sidewalk Snow Clearing</td>
<td>$936</td>
</tr>
<tr>
<td>Employee Related Costs</td>
<td>$442</td>
</tr>
<tr>
<td>Catch Basin Cleaning, Grass Cutting &amp; Phragmite Control</td>
<td>$325</td>
</tr>
<tr>
<td>Contract Pressures</td>
<td></td>
</tr>
<tr>
<td>Insurance and Vehicle Insurance Charges</td>
<td>$173</td>
</tr>
<tr>
<td>Fuel (Budgeted at 1.10/L, pressure $308K partially</td>
<td>$140</td>
</tr>
<tr>
<td>mitigated by tax stabilization reserve)</td>
<td></td>
</tr>
<tr>
<td>Winter Program Adjustment Decrease</td>
<td>($1,450)</td>
</tr>
</tbody>
</table>

() Denotes budget savings / revenue increases
DIRECTOR
Maureen Cosyn Heath
(6.00 FTE)

Administration
(1.00 FTE)

SPM Continuous Improvement
(1.00 FTE)

Transit Operations
(623.00 FTE)

Transit Fleet Maintenance
(141.69 FTE)

Accessible Transportation Services
(9.0 FTE)

Transit Support Services
(15.0 FTE)

Transit Planning & Infrastructure
(16.38 FTE)

Customer Experience & Innovation
(12.34 FTE)

<table>
<thead>
<tr>
<th>Permanent Complement (FTE)</th>
<th>Management</th>
<th>Other</th>
<th>Total</th>
<th>Staff to Mgmt. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>7.00</td>
<td>775.41</td>
<td>782.41</td>
<td>110.77:1</td>
</tr>
<tr>
<td>2022</td>
<td>7.00</td>
<td>818.41</td>
<td>825.41</td>
<td>116.92:1</td>
</tr>
<tr>
<td>Change</td>
<td>0.00</td>
<td>43.00</td>
<td>43.00</td>
<td></td>
</tr>
</tbody>
</table>
## Transit

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Experience and Innovation</td>
<td>1,639,560</td>
<td>1,841,070</td>
<td>1,841,070</td>
<td>201,510</td>
</tr>
<tr>
<td>Transit Planning and Infrastructure</td>
<td>3,110,870</td>
<td>3,161,870</td>
<td>3,161,870</td>
<td>51,000</td>
</tr>
<tr>
<td>Support Services</td>
<td>1,801,990</td>
<td>1,785,830</td>
<td>1,784,810</td>
<td>(17,180)</td>
</tr>
<tr>
<td>Director Of Transit</td>
<td>140,730</td>
<td>627,860</td>
<td>627,860</td>
<td>487,130</td>
</tr>
<tr>
<td>Financial Charges &amp; General Revenue</td>
<td>(33,457,140)</td>
<td>17,999,300</td>
<td>(34,474,040)</td>
<td>(1,016,900)</td>
</tr>
<tr>
<td>Operations HSR</td>
<td>51,355,470</td>
<td>62,760,340</td>
<td>55,859,980</td>
<td>4,504,510</td>
</tr>
<tr>
<td>Transit Fleet</td>
<td>31,938,300</td>
<td>35,112,400</td>
<td>34,787,770</td>
<td>2,849,470</td>
</tr>
<tr>
<td>ATS</td>
<td>24,304,920</td>
<td>26,908,980</td>
<td>24,382,680</td>
<td>77,760</td>
</tr>
<tr>
<td><strong>Total Transit</strong></td>
<td><strong>80,834,700</strong></td>
<td><strong>150,197,650</strong></td>
<td><strong>87,972,000</strong></td>
<td><strong>7,137,300</strong></td>
</tr>
</tbody>
</table>
## 2022 TRANSIT BUDGET DRIVERS

<table>
<thead>
<tr>
<th>Item</th>
<th>Impact ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 5 Annualization + Year 6 of the 10 Year Local Transit Strategy</td>
<td>$4,144</td>
</tr>
<tr>
<td>Employee Related Costs – Excludes Year 5 Annualization + Year 6</td>
<td>$1,158</td>
</tr>
<tr>
<td>Fuel – Natural Gas</td>
<td>$657</td>
</tr>
<tr>
<td>Insurance and Vehicle Insurance Charges</td>
<td>$448</td>
</tr>
<tr>
<td>PRESTO Operating Agreement</td>
<td>$381</td>
</tr>
<tr>
<td>Transit Fleet Reserve Inflationary Increase</td>
<td>$230</td>
</tr>
<tr>
<td>Fuel (Budgeted at 1.10/L, pressure $204K partially mitigated by tax stabilization reserve)</td>
<td>$89</td>
</tr>
</tbody>
</table>

( ) Denotes budget savings / revenue increases
THANK YOU