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

<table>
<thead>
<tr>
<th>Cemeteries</th>
<th>Forestry</th>
<th>Solid Waste Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Active Cemetery Management</td>
<td>• Tree Maintenance</td>
<td>• Cleanliness Services</td>
</tr>
<tr>
<td>• Dormant Cemetery Management</td>
<td>• Tree Planting</td>
<td>• Organic Waste Collection</td>
</tr>
<tr>
<td>• Active Cemeteries Support Services</td>
<td>• Tree Maintenance and Planting Support Services</td>
<td>• Leaf and Yard Waste Collection Services</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corporate Security</th>
<th>Engineering Services</th>
<th>Energy Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Energy Engineering Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Utilities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facilities Management</th>
<th>Fleet Services Management</th>
<th>Horticultural Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Accommodations</td>
<td>• Capital Planning and Contract Management</td>
<td>• Beautification</td>
</tr>
<tr>
<td>• Capital Planning and Project Management</td>
<td>• Fleet Maintenance</td>
<td>• Beautification Support Services</td>
</tr>
<tr>
<td>• Facilities Operations and Maintenance</td>
<td>• Materials, Fuel and Systems Management</td>
<td></td>
</tr>
<tr>
<td>• Energy Engineering Services</td>
<td>• Regulatory Compliance and Driver Training</td>
<td></td>
</tr>
<tr>
<td>• Facilities Planning and Business Support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Stadium Operations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parks and Open Space Access</th>
<th>Public Transportation</th>
<th>Roadway Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Parks Maintenance</td>
<td>• Conventional Public Transit</td>
<td>• Right of Way Infrastructure Maintenance Support Services</td>
</tr>
<tr>
<td>• Planning, Design, Development and Acquisition</td>
<td>• Rapid Transit</td>
<td>• Right of Way Infrastructure Repairs and Maintenance</td>
</tr>
<tr>
<td>• Natural Open Spaces</td>
<td>• Specialized Public Transit</td>
<td>• Business Initiatives</td>
</tr>
<tr>
<td>• Parks and Natural Open Space Support Services</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Storm Water Management</th>
<th>Water Supply and Distribution</th>
<th>Wastewater Collection and Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Infrastructure Maintenance</td>
<td>• Water Distribution</td>
<td>• Wastewater Collection</td>
</tr>
<tr>
<td>• Storm Water Collection</td>
<td>• Water Supply</td>
<td>• Wastewater Support Services</td>
</tr>
<tr>
<td>• Storm Water Support Services</td>
<td>• Water Support Services</td>
<td>• Wastewater Treatment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Storm Water Management</th>
<th>Water Supply and Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Storm Water Treatment</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Supply and Distribution</th>
<th>Wastewater Collection and Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Water Distribution</td>
<td>• Wastewater Collection</td>
</tr>
<tr>
<td>• Water Supply</td>
<td>• Wastewater Support Services</td>
</tr>
<tr>
<td>• Water Support Services</td>
<td>• Wastewater Treatment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transportation Operations</th>
<th>Wastewater Collection and Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Traffic Engineering and Road Safety</td>
<td>• Wastewater Collection</td>
</tr>
<tr>
<td>• Traffic Signals, Traffic Signs and Traffic Pavement Markings</td>
<td>• Wastewater Support Services</td>
</tr>
<tr>
<td>•</td>
<td>• Wastewater Treatment</td>
</tr>
</tbody>
</table>
BUDGET SCHEDULE: HAMILTON WATER & TRANSIT

Water – Rate Budget
November 23, 2020

Capital Budget
November 27, 2020

Transit Day
January 22, 2021

Public Works
January 27, 2021
• Energy, Fleet & Facilities
• Engineering Services
• Environmental Services
• Transportation Operations & Maintenance
2020 Highlights
Public Works
OUR PRIORITIES

COMMUNITY ENGAGEMENT & PARTICIPATION
Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community.

ECONOMIC PROSPERITY & GROWTH
Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

HEALTHY & SAFE COMMUNITIES
Hamilton is a safe and supportive city where people are active, healthy, and have a high quality of life.

CLEAN & GREEN
Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

BUILT ENVIRONMENT & INFRASTRUCTURE
Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

CULTURE & DIVERSITY
Hamilton is a thriving, vibrant place for arts, culture, and heritage where diversity and inclusivity are embraced and celebrated.

OUR PEOPLE & PERFORMANCE
Hamiltonians have a high level of trust and confidence in their City government.
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
COVID-19 Highlights

Public Works

COVID-19 TESTING SITE ENTRANCE

APPOINTMENT REQUIRED

FOR MORE INFORMATION:
COVID-19 HOTLINE 905-974-9848
www.hamilton.ca/coronavirus
COVID-19 HIGHLIGHTS

Emergency Response & Support

• Widespread facility closures
• Supply distribution warehouse
• Emergency overflow shelter at FirstOntario Centre
• Dave Andreychuk Arena drive-through testing centre
COVID-19 HIGHLIGHTS

Emergency Response & Support

• Significant impacts to Transit
• Closures – facilities, escarpment stairs, play structures, etc.
• Signage, barriers, caution tape, etc.
• Enhanced cleaning and disinfecting
• Modifications in municipal buildings
COVID-19 HIGHLIGHTS

Delivering Services

• Continued delivering our services
  • Minor disruption to leaf and yard waste collection
  • Transit impacts to ridership/revenues
  • Some construction projects on hold
• New health and safety measures
• Implementing virtual / online options
• Technology and dashboards
• Changes to public consultation
• Cross training for essential services
• Remote workforce

Increased reliance on technology

Virtual Public Consultation
COVID-19 HIGHLIGHTS

Evolving Our Operations

- Strong focus on health and safety measures
- Enhanced PPE for safer operations (bioshields and face coverings)
- Reliance on Quality Management System
- Continued facility modifications
- Remote work collaboration

HSR – Driver’s Bioshield

Increased PPE for waste collectors

Physical distancing at a safety talk
CLEAN & GREEN 2020 HIGHLIGHTS

LED Technology
Annual electricity costs for street lighting since 2014

80% of Emerald Ash Borer Program Complete

6 Electric Vehicles

8.5 lane km of new bike paths

35% reduction

Beautyified

268,410 Plants Grown

325 Floral Traffic Islands

133 Perennial Medians

79 Civic Buildings

691 Hanging Baskets

12,040 Trees Planted
CLEAN & GREEN 2020 HIGHLIGHTS

39.8% Residential Waste Diversion Achieved

- 0.2% decrease in residential waste
- 3.6% increase in recycling
- 6.4% decrease in landfill
- 6.6% increase in leaf and yard waste
- 7.7% increase in recycling

142,000 Landfill Tonnes
Residential garbage and residue from processing facility

15,000 Tonnes
Green Cart materials

39,200 Recycling Tonnes
Materials sent to end markets from Blue Box program and Community Recycling Centres

26,400 Tonnes
Leaf and Yard Waste
CLEAN & GREEN 2020 HIGHLIGHTS

Waste Highlights

• New Equipment for Downtown Cleanliness Program
• Materials Recycling Facility Lighting Upgrade

Construction Highlights

• 500 MacNab Passive House (CityHousing Hamilton) under construction
• Valley Park Library LEED under construction
• Completion of the Biosolids Management Facility
COVID-19 HIGHLIGHTS

CLEAN & GREEN

- Transit
- Parks and trails
- Play structures
- Waste collection

- Cemeteries
- Horticulture

PLAY STRUCTURES CLOSED
Playground structures are closed until further notice. Residents are welcome to enjoy park greenspaces in small groups while observing physical distancing practice. Park equipment and play structures are not sanitized.

hamilton.ca/coronavirus

CUSTOMERS ARE REQUIRED TO WEAR A NON-MEDICAL MASK ON TRANSIT.
hamilton.ca/masks

1. Before putting it on, wash your hands and place mask away from your face.
2. Place the covering over your nose and mouth, making sure there are no gaps and it fits snugly.
3. Avoid touching your face, mask while wearing it. Do not touch the inside of your mask on your neck, forehead or hanging from your ear.
4. Change the face covering as soon as it gets soiled or damp.
5. Remove it without touching the outside of the mask.
6. Toss out your disposable, non-medical mask in a garbage can/container once you depart the bus.
COVID-19 HIGHLIGHTS

Mobility Recovery Plan

- Collaborative initiative between PED and PW
- Focus on enhancing availability of sustainable transportation modes and supporting COVID-19 recovery
- Opportunity to advance and expedite cycling projects identified in the Transportation Master Plan
- Enhanced and added new cycling facilities
- Concrete cycling curbs
- Bike scale hazard markers
BUILT ENVIRONMENT & INFRASTRUCTURE
2020 HIGHLIGHTS

Road Right-of-Way Infrastructure
- 26 Projects
  - 10% decrease
- $76.3 Million
  - 4.2% increase

Infrastructure Inspections
- 110 km Mainline Sewers
  - 10.5% decrease
- 6 km Watermains
  - 14% decrease
- 22,000 Catch Basins
  - 10% increase

Infrastructure Rehabilitation
- 6.86 km Sewer Rehab
  - 37.6% decrease
- 81.84 lane km Rural Road Resurfacing
  - 27.4% decrease
- 6 km Watermain Rehab
  - 9% increase
- 5.5 lane km existing bicycle lanes with modified buffers/barriers
  - NEW
- 100 km Roads Rehabilitated
  - 136 Street Light Poles Replaced
  - NEW
Asset Management

• Strategic Asset Management Plan

Major Right-of-Way Projects

• Claremont Access
• Locke Street Reconstruction (Project of the Year)
• Rymal Road
• Birch Avenue
• Highway 8
• Queen Street South Two-Way Conversion
• Victoria Street Two-Way Conversion
• North Service Road
• LINC Rehabilitation

Programs

• Street lighting pole replacement program
• Asphalt quality testing and compliance
BUILT ENVIRONMENT & INFRASTRUCTURE
2020 HIGHLIGHTS

Claremont Access
Keddy Access Trail
Rymal Road
North Service Road
Queen St Conversion
Highway 8 Dundas
Facilities

- $55.5M capital delivery for facilities
  (value of work delivered in 2020 for various clients)
  - 5 Year Average: $50.1M, 174 capital projects annually

Major Projects in 2020

- Valley Park Recreation Centre – Fall 2021
- Ancaster Arts Centre – Winter 2021
- 500 MacNab St – Passive House – Spring 2021
- Police Investigative Services Division – September 2020
- Lister Annex – Late 2020
- 100 King Street West Office Space – Spring 2021
## Facilities Funding Streams: 2020

<table>
<thead>
<tr>
<th>BLOCK FUNDING</th>
<th>FACILITY RESERVES</th>
<th>DC FUNDED</th>
<th>SPECIAL*</th>
<th>OTHER CLIENTS</th>
<th>NOT IN PORTFOLIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate facilities</td>
<td>Libraries</td>
<td>New Development Recreation</td>
<td>Ancaster Arts Centre</td>
<td>City Housing Police Services</td>
<td>Heritage Facilities</td>
</tr>
<tr>
<td>Recreation facilities</td>
<td>Stoney Creek City Hall</td>
<td>Corporate Facilities (Ancaster Arts Centre)</td>
<td>Downtown Accommodation</td>
<td></td>
<td>Airport</td>
</tr>
<tr>
<td>Long Term Care Facilities</td>
<td></td>
<td>New Development Libraries</td>
<td>Lister Annex</td>
<td></td>
<td>CV - VanWagners Beach</td>
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<tr>
<td>Entertainment facilities</td>
<td></td>
<td></td>
<td>Transit (ICIP)</td>
<td></td>
<td>Wild Water Works</td>
</tr>
</tbody>
</table>

*Council approved and/or funding from other levels of government
BUILT ENVIRONMENT & INFRASTRUCTURE
2020 HIGHLIGHTS

Valley Park Recreation Centre
Ancaster Arts Centre
500 MacNab St N
Police Investigative Services
ListerAnnex
100 King St W
BUILT ENVIRONMENT & INFRASTRUCTURE
2020 HIGHLIGHTS

Disaster Mitigation Adaptation Fund
• Shoreline Protection
• Combined sewer outfall backflow valves
• Fifty Road Parkette completed

New & Enhanced Parks
• Waterford Park
• Red Hill Park
• Spencer Creek Estates
• Alexander Park
• Ridgemount Park
• Century Street Parkette
• Waterford Park (spray pad)

Visit by Minister McKenna

Spencer Creek Estates
BUILT ENVIRONMENT & INFRASTRUCTURE

2020 HIGHLIGHTS

Corktown Park

Captain Cornelius Park

Bobby Kerr Park

Rockview Park

Alexander Park

Churchill Park
COVID-19 HIGHLIGHTS

BUILT ENVIRONMENT & INFRASTRUCTURE

- Construction project delays
- Supply chain delays
- Modifications in municipal buildings
- Temporary facilities support
  - Supply distribution warehouse
  - Emergency overflow shelter at FirstOntario Centre
  - Dave Andreychuk Arena drive-through testing centre
Healthy & Safe Communities
2020 Highlights

PUBLIC WORKS 2021 OPERATING BUDGET
JANUARY 27, 2021
HEALTHY & SAFE COMMUNITIES
2020 HIGHLIGHTS

54 Neighbourhoods added to Vision Zero speed reduction program

- 450 Traffic signal timing adjustments completed
- 25,060 Traffic sign inspections (24.6% increase)
- 78 Speed cushions installed (11.2% decrease)
- 1,025 Turn arrow markings replaced (55% increase)
- 601 Reflective markers installed (on the LINC and RHVP) (59% decrease)
- 3 Streets converted to 2-way
- Repainted:
  - 48% of roadway lane markings
  - 23.9% crosswalks repainted
Security
- Security measures in City Hall Forecourt including installation of camera

Road and Traffic Safety
- Modernization of Street Lighting Maintenance
- Vision Zero Action Plan:
  - 12 Community Safety Zones Implemented
  - Continued community education campaigns

Overall, the Vision Zero Road Safety Program has resulted in 24 percent reduction in injury collisions over the last five years.
Automated Speed Enforcement

- ASE pilot program in 16 locations over one year
- 20,000+ tickets issued in the first two months of operation
- Showing speed reduction of approx. 5km/h at the locations

Red Light Cameras

- Program running for 20 years
- 33 full-time camera sites
- Average 21,000 tickets annually
- 53% reduction in right-angle collisions at these locations
- 69% reduction in injury/fatal collisions at these locations
COVID-19 HIGHLIGHTS

OUR PEOPLE & PERFORMANCE

- Many essential workers in Public Works
- Adapted to change and uncertainty
- Increased health and safety measures
- Staffing pressures on levels of service and delivery
- Redeployment and remote work
- Mental health and resiliency resources
Our People & Performance
2020 Highlights

CVOR rating improvements

- Upgraded safety rating issued by MTO
- Significant drop in accumulated points

Technology improvements

- Enhancements to online services
- Increased use of dashboards

Driver Training Simulator

Bell Utility Project
Leadership development
- Programs suspended due to COVID-19
- PM Standardization Training
- Virtual Training

Our People Survey
- Implementation of action plans
- 188 actions in Public Works

Leadership Development Courses 2019/2020
Working on the business

- Business acumen/ change management response to loss of corporate knowledge with staff departures (retirements, job changes)
- Process Standardization
  - (e.g. Construction Act Prompt Payment)
- Divisional/Sectional Annual Reports
- Developmental Senior Project Manager roles across divisions
- Divisional leadership programs
Departmental Strategic Planning
- Strategic framework/DLT mandate
- Quality management
- Workforce planning
- Common objectives for 2021-2024
- Balanced Scorecard/PW Analytics

Project Management Standardization
- Standard project charter and other templates for improved project performance and reporting across PW
- Phase 1 completed in 2020
- 35 Managers and 22 SPM’s trained
- Phase 2 beginning in 2021
Community Engagement & Participation 2020 Highlights
COMMUNITY ENGAGEMENT & PARTICIPATION
2020 HIGHLIGHTS

- 26 Team Up to Clean Up Events
- 280 White Trillium Awards issued
- $44,500 Traffic Island Sponsorship received
- HSR
  - (Re)envision engagement events
  - Online Accessibility Event
- Engage Hamilton: PW projects
  - Albion Falls
  - Valley Community Centre Park
  - Sidewalk Snow Clearing
- Water education resources online
- COVID-19 Town Halls

Team Up to Clean Up
Economic Prosperity & Growth
2020 Highlights
Open for Business

• Bell Project – utility servicing
  • 210 kms of fibre optics installed

• AEGD Project
  • Upgrading 3 pumping stations
  • 16 RFTs for construction and equipment purchases

• Waterfront Development
  • Shorewall and wastewater pumping station complete, site servicing (Brownie Award)
  • Promenade Park/Copps Pier construction continues through 2021

• Hamilton Youth in Construction
  • 9 youth in the fall 2020 program
  • Classes transitioned virtual due to COVID-19
ECONOMIC PROSPERITY & GROWTH

2020 HIGHLIGHTS

Pier 8 Wastewater Pumping Station
Pier 8 Shorewall Reconstruction
Pier 8 Shorewall
AEGD – Dickenson Road Sanitary Sewer Design
Pier 7 and 8 servicing
• Wheelchair swing at Gage Park
• Accessibility “mobi-mat” at the beach strip
• Additional accessible parking spaces and improved locations
• Dynamic symbol update

Dynamic Symbol updates

Wheelchair swing at Gage Park

Accessibility “Mobi-mat”
CULTURE & DIVERSITY 2020 HIGHLIGHTS

- Tenant Waste Guide available in 10 languages
- Hamilton Urban Precinct Entertainment Group awarded the contract to deliver entertainment, culture, and renewed vitality to Hamilton’s downtown core
- Ancaster Memorial Arts Centre
- Cemeteries meeting cultural needs

Ancaster Memorial Arts Centre

Tenant Waste Guide
The **PWQMS** seeks to meet the minimum standards as prescribed in ISO 9001:2015.

In 2020, a main highlight was the announcement of the **PWQMS Principles** showing our objectives and commitment towards providing quality services to citizens.
- Release of the PWQMS Operational Standard that identifies the requirements to plan, implement and control our operations
- Support the Corporate Pandemic Response team in the development and release of over 30 controlled documents
- Deliver training on Documents and Record Management practices
- Improve engagement and cross-functional collaboration in the development and release of Departmental operational and Health & Safety procedures
- **Departmental Training Framework** - develop a procedure to ensure staff are trained on new and updated departmental procedures
- **Internal Audit Program** – create and launch a Public Works Internal Audit program to ensure policies and procedures are being followed
- **PW QMS Non-Conformance Process** – gather and consolidate requirements for the development of a non-conformance standard
# Continuous Improvement

## 2020 Highlights

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideas Generated</td>
<td>12</td>
<td>87%</td>
<td></td>
</tr>
<tr>
<td>Projects Started</td>
<td>91</td>
<td>87%</td>
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</tr>
<tr>
<td>Projects Completed</td>
<td>90</td>
<td>15%</td>
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<tr>
<td>Kaizen Events</td>
<td>5</td>
<td>77%</td>
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</tr>
<tr>
<td>Recovered Capacity</td>
<td>$534k</td>
<td>79%</td>
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<tr>
<td>Cost Reduction</td>
<td>$0</td>
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<tr>
<td>Cross-Dep/Cross Div. Collaboration</td>
<td>44</td>
<td>120%</td>
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</tr>
<tr>
<td>Staff Involvement</td>
<td>684</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Green Belts Trained</td>
<td>29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes:
- Since Program Inception

---

*Hamilton*

PUBLIC WORKS 2020 OPERATING BUDGET
JANUARY 28, 2020
ASSET METRICS

Facilities Management
Manage $2.1 Billion in assets >500 Facilities

Sewers and Watermains
1,202 km Sanitary Sewer
1,231 km Storm Sewer
571 km Combined Sewer
9 Combined sewer overflow tanks
2,110 km Watermains

Transportation Operations
Manage 45,385 Street lights

Road Maintenance
Manage 6,492 lane km of roads
231.3 km bike lanes
2,445 km sidewalks

Fleet Services
Manage and Maintain 1,350 Units

Bridges & Structures
Manage and Maintain 399

Parks and Open Spaces
228 Playgrounds
68 Spray Pads
525 Park Locations

Cemeteries
Manage 69 Municipal Cemeteries

Litter Containers
600+ Streetscape litter containers

Solid Waste Management
Operate:
3 Community Recycling Centres & Transfer Stations
1 Open Landfill
12 Closed Landfills
1 Material Recycling Facility
1 Central Composting Facility
PERFORMANCE METRICS

**Winter Operations**
- Manage 6,492 lane km of road

**Road Maintenance**
- 109,960 km of roadway patrolled for deficiencies
- 3,902 Traffic sign repaired/replaced (11.5% increase)
- 31,878 Pothole sites repaired (27% increase)

**Natural Open Space & Parkland**
- Manage 24,086 hectares (0.02% increase)
- Play structure inspections 2,646 (30% decrease)
- 935 metres of trails constructed (136% increase)

**Cemeteries**
- 1,187 Internments at Hamilton Cemeteries (5% decrease)

**Solid Waste Management**
- Over 27 Million Waste pickups per year (0%)
- 222,600 tonnes of residential waste (4% increase)

**Electricity produced**
- 24,316 MWH Woodward & Glanbrook

**Visitors to the new Gage Park Tropical Greenhouse**
- 22,109 (60% decrease)
PERFORMANCE MEASUREMENT PROGRAM

Program Objectives

- Show strategic and operational goals are met
- Enforce accountability on performance
- Continuously improve efficiency / effectiveness of services
Departmental web-based analytics tool allows staff to monitor performance in real-time to demonstrate compliance, achieve efficiency and continuously improve consistency.

Snapshot of dashboard data as of Dec 2020
## HIGH-PERFORMING KPIs

**As of December, 2020**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Metric</th>
<th>Target</th>
<th>YTD</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste – Missed Collection</td>
<td>Number of missed collections per 10,000 pickups (no bulk)</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Play Structure</td>
<td>Maintain &gt;75% inspected play sites as per regulation</td>
<td>75%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Safety Inspections</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety - CVOR</td>
<td>Average CVOR</td>
<td>49.9%</td>
<td>47.3%</td>
<td></td>
</tr>
<tr>
<td>Purchasing Policies</td>
<td>Total number of Policy 19 Occurrences</td>
<td>12</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
## PERFORMANCE MEASUREMENT PROGRAM

### OPPORTUNITIES FOR IMPROVEMENT KPIs

**As of December 2020**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Metric</th>
<th>Target</th>
<th>YTD</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cemeteries – Pre-need sales</td>
<td>Amount of pre need sales</td>
<td>$1,372,000</td>
<td>$1,162,717</td>
<td></td>
</tr>
<tr>
<td>Water – Safe drinking water</td>
<td>Maintain zero confirmed adverse water quality incidents</td>
<td>0</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Transit – Cancelled Service</td>
<td>Number of hours of cancelled services due to no operator available</td>
<td>0</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
COVID-19
• Ongoing impacts on operations

Right-of-Way Capital Program Delivery
• Revised roads budget achieves re-investment rate of 1.09%
  • Below the FCM recommended 2%-3% target
• MECP Changes – system wide ECA
• Excess Soils O.Reg 406-19
• Complete Streets – design and construction of multi-modal transportation systems
• Higher risk and complex projects (e.g. escarpment, tunneling, etc.)
OVERALL CONDITION INDEX (OCI) RESULTS

Overall network average OCI is 63 (Minor Rehab.)*

*From 2019 pavement condition assessment

Overall Condition Index

<table>
<thead>
<tr>
<th></th>
<th>0-40</th>
<th>40-55</th>
<th>55-70</th>
<th>&gt;70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconstruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Rehab.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor Rehab.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Marion Ave S OCI = 28
Greenford Dr. OCI = 44
Mohawk Road OCI = 60
Upper Sherman OCI = 90

Breakdown Across Full Network

6% Reconstruction
22% Major Rehab.
38% Minor Rehab.
34% Good
FACILITY CONDITION INDEX (FCI) RATINGS

Greensville Hall
FCI est. > 65%

Eastwood Arena
FCI 45%

Hill Park Recreation Centre
FCI = 21%

Brewster Pool
FCI=12%

Overall FCI across 500+ facilities is 8.73% (Fair)

Breakdown Across All Facilities

<table>
<thead>
<tr>
<th>Facility Condition Index</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>51%</td>
</tr>
<tr>
<td>Fair</td>
<td>25%</td>
</tr>
<tr>
<td>Poor</td>
<td>16%</td>
</tr>
<tr>
<td>Critical</td>
<td>8%</td>
</tr>
</tbody>
</table>
Climate Change

- Building resiliency and taking action to mitigate and adapt to climate change
- Key areas: water quality, flood mitigation, greenhouse gas reduction, invasive species
- Public Works plays a major role in the City’s Corporate Climate Change goals
- Prioritizing actions
  - Corporate Energy Policy and energy projects
  - Resiliency program development to support a climate prioritized approach
  - Climate inventory for baseline application
  - Focus on green fleet/equipment

Solar panels-Wentworth Operations Centre
Compressed Natural Gas (CNG) Bus
Urgent Requests & Emergency Response

- Public Works is highly reactive to urgent requests and emergencies
- This reduces capacity to manage planned activities
- Response to extreme weather events can result in unexpected budget deficits.

Examples:

- Escarpment slope failures (Hwy 8, McNeilly)
- Significant storm response (downed trees, flooding)
TRENDS AND ISSUES 2021 – 2024

Forestry

• Demand for continued focus on technology and integration into daily operations
• Limited locations for new trees to be planted
• Storm damage response and costs:
  • Climate emergency
  • Increase intensity / frequency
• Continue to identify emerging threats to urban canopy and develop a management plan:
  • Oak Wilt Disease
  • Gypsy Moth (Lymantria dispar)
  • Asian Longhorned Beetle
  • Beech Bark Disease

Current tree canopy is approx. 21.2%
## Contract Renewals

<table>
<thead>
<tr>
<th>Contract</th>
<th>Timing</th>
<th>Budget Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer Station / Community Recycling Centres</td>
<td>March 2020</td>
<td>$1,542,960</td>
</tr>
<tr>
<td>Curbside Waste Collection</td>
<td>March 2021</td>
<td>$2,936,820</td>
</tr>
<tr>
<td>Organic Processing</td>
<td>March 2021</td>
<td>$899,000</td>
</tr>
<tr>
<td>Recycling Processing</td>
<td>March 2021</td>
<td>$598,000</td>
</tr>
</tbody>
</table>
Automated Speed Enforcement & Red Light Camera Offences

- ASE violations are currently processed in the provincial offences court system, which administers offences under the Provincial Offences Act (POA).
- The City is working with partner municipalities to have the Provincial government to transfer both the ASE and RLC violations to be processed under the Administrative Monetary Penalty (AMP) system.
  - This would allow the programs to be more efficient and effective manner, and would reduce the significant workload in the POA system.
- The influx of tickets related to ASE and RLC has resulted in the need to hire 3 to 4 additional staff in POA and legal to deal with the processing of tickets.
Red Light Camera Reserve

- The forecasted expenditures are outpacing the forecasted revenues.
- The projected ending reserve balance in 2025 is $770K with an estimated reserve shortfall of approximately $570K in 2026 with a remaining shortfall in 2027 of $840K.
TRENDS AND ISSUES 2021 – 2024

Workforce Management

- Difficulty with filling skilled roles
- Creating a healthy, engaged and supportive workplace will attract and retain knowledgeable staff
- Plan for the departure of long standing and knowledgeable employees

Technology

- Must leverage technology and innovation to improve the delivery of projects and services
Legislation

Changes to federal and provincial legislation have an associated impact on how the City delivers services:

- **Bill 6** *Infrastructure for Jobs & Prosperity Act, 2015* – requirements for a strategic asset management plan
- **Bill 47** *Making Ontario Open for Business Act, 2018* - impacts minimum wage standards, work scheduling, personal emergency leave
- **Bill 66** *Restoring Ontario’s Competitiveness Act, 2019* – declared municipalities as “non-construction employers”
- **Bill 108** *More Homes, More Choice Act, 2019* - changed the structure of development charges and parkland acquisition
- **Bill 142** Construction Act, 2019 – liens, prompt payment, payment disputes
- **Bill 151** *Waste-Free Ontario Act, 2016* – increasing waste diversion and building a circular economy
Energy & Fuel Markets

- Global adjustment benefit
- Aging fuel sites
- Electricity, diesel, gasoline and natural gas energy markets remain volatile and are impacted by factors such as global markets, supply and demand and regulatory
- Projects and programs that support climate change initiatives
- Emphasis on climate change and emissions reduction
Growth

• There is currently no mechanism to identify operating impacts from growth related activities in departmental budgets
• Budgetary constraints make it a challenge to accommodate these growth impacts
• Development application approvals
• Intensification challenges for Public Works
Definitions: Minimum Maintenance Standards (MMS)

MMS Deficiency:
• A surface discontinuity on or within a sidewalk that exceeds two centimeters
• Any vertical discontinuity that creates a step formation at any joint or crack in the surface of the sidewalk

City Requirements for MMS deficiency:
• Reasonable measures to protect users of the sidewalk from the discontinuity, include making permanent or temporary repairs (asphalt, grinding, concrete), alerting users’ attention to the discontinuity or preventing access to the area of discontinuity
Definitions: Minimum Maintenance Standards (MMS)

NON MMS Deficiency:
• Vertical deflections less than 2 cm, concrete spalling, cracking, improper crossfall and asphalt patches on concrete.

City Requirements for NON MMS deficiency:
• Reasonable measures to identify deficiency
Based on annual inspection of 2,445 kms of sidewalks:

Reported deficiencies City wide in 2019:

- 4,146 MMS deficiencies
- 136,224 Non MMS deficiencies

Cost to repair all deficiencies in one year would be $44M = Funding gap of $38M
<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Division</td>
<td>Program Area</td>
<td>2019 Budget</td>
<td>2019 Funding Source</td>
<td>Completed By Contractors</td>
<td>Completed by City Staff</td>
<td>Estimated # of km’s in 2019</td>
</tr>
<tr>
<td>1</td>
<td>Transportation, Operations and Maintenance</td>
<td>Sidewalk Programs Operating Budget</td>
<td>$2,993,070</td>
<td>Operating Levy</td>
<td>$562,310</td>
<td>$2,430,760</td>
<td>18.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sidewalk Rehabilitation Program</td>
<td>$750,000</td>
<td>Capital Levy</td>
<td>$750,000</td>
<td>$0</td>
<td>18.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ward and Minor Maintenance</td>
<td>$790,000</td>
<td>Ward &amp; Minor Maintenance</td>
<td>$790,000</td>
<td>$0</td>
<td>18.7</td>
</tr>
<tr>
<td></td>
<td><strong>Transportation, Operations and Maintenance SUBTOTAL:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18.7</td>
<td>0.8%</td>
</tr>
<tr>
<td>2</td>
<td>Engineering Services</td>
<td>Road Replacement Program</td>
<td>$756,000</td>
<td>Ward &amp; Minor Maint: $185,000 Gas Tax: $571,000</td>
<td>$756,000</td>
<td>$0</td>
<td>7.2</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Rural Rehabilitation Program</td>
<td>$0</td>
<td>N/A</td>
<td>$0</td>
<td>$0</td>
<td>0.0</td>
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<tr>
<td>4</td>
<td></td>
<td>Urban Rehabilitation Program</td>
<td>$1,081,500</td>
<td>Gas Tax</td>
<td>$1,081,500</td>
<td>$0</td>
<td>10.3</td>
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<tr>
<td></td>
<td><strong>Engineering Services SUBTOTAL:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17.5</td>
<td>0.7%</td>
</tr>
<tr>
<td>5</td>
<td>Engineering Services</td>
<td>Road Cuts Program</td>
<td>$887,119</td>
<td>100% recovered from permit taker</td>
<td>$887,119</td>
<td>$0</td>
<td>6.1</td>
</tr>
</tbody>
</table>

*Does not include growth related road development or the new sidewalk program (PED)*
Sidewalk Program Areas: 2019*

Quick Stats:
- **1.5% of network** addressed in 2019
- 62% of sidewalk work completed by **contractors** (38% by city staff)
- Of maintenance work (**BLUE** program areas)
  - 54% for sidewalks; 46% is for **other repairs** (curb damage, driveway repairs, resetting catch basins, asphalt patching)

Total Budget: $6,370,570

- Sidewalk Operating Budget, $2,993,070
- Urban Rehabilitation Program $1,081,500
- Ward and Minor Maintenance $790,000
- Sidewalk Rehabilitation Program $750,000
- Road Replacement Program $756,000

Sidewalk Funding Sources: 2019*

- Gas Tax 26%
- Operating Levy 47%
- Ward & Minor Maintenance 15%
- Capital Levy 12%

*Does not include growth related road development, road cuts (100% cost recovery) or new sidewalk program (PED).
LOOKING AHEAD 2021

Right-of-Way projects
• Rymal Road/Regional Road 56 Construction
• Rymal Road EA – Upper James to Dartnall
• Neighbourhood resurfacing: Ancaster Heights (Lime Kiln North), Central, McQuesten West, Battlefield, Greenford, Vincent, Bonnington, Southham

Facility projects
• Solar thermal pilot at Westmount Rec Centre
• Passive House (500 MacNab St. N.)
• Recreation Indoor/Outdoor Study
• Roof Management
• Valley Park Substantial Performance
• EFFM portfolio adds Police Forensics facility & 4 stations
• LED lighting upgrades

Development of Core Asset Management Plans
Looking Ahead 2021

Transportation Operations Initiatives
- Implementation of the RHVP / LINC Operational Plan
- Connected Autonomous Vehicle Test Track
- Railway Regulation Safety Improvements
- Vision Zero initiatives

Space Management Solutions
- Master Office Space Management Plan – Ontario Works, Public Health, Public Works, Corporate Services & Human Resources
- Yards Review & Space Optimization

Horticulture
- Upgrades of horticultural infrastructure (i.e. irrigation)
- Enhanced programming for the Tropical Greenhouse
LOOKING AHEAD 2021

Waste Programs
• New waste collection service contract
• Route optimization review implementation
• New waste collection packers
• Preparing for future growth (curbside collection and downtown cleanliness)
• Solutions for mobility and geotagging of assets

Other Major Initiatives
• Year 9 of the 10-Year Emerald Ash Borer Management Plan
• Year 5 of 10-Year Transit Strategy
• Our People Survey action implementation and launch of new OPS Survey (2021-2024)
Quality Management System (QMS)

- **Departmental Training Framework** - develop a procedure to ensure staff are trained on new and updated departmental procedures
- **Internal Audit Program** – create and launch a Public Works Internal Audit program to ensure policies and procedures are being followed
- **PW QMS Non-Conformance Process** – gather and consolidate requirements for the development of a non-conformance standard
Looking Ahead 2022 – 2024
Public Works
Enterprise Asset Management (EAM)

- Significant opportunity for improved asset management and higher quality service delivery with less cost
- Business case focused on redesigning EAM practices and processes with associated system workflows
- 11+ software systems in Public Works cost $1.06M annually
- Project approved by Council Q1 2020; Contract signed Q3 2020.
- Discovery phase in progress until Q2 2021 followed by full implementation
Right-of-Way Infrastructure

- Explore technology applications to address the need for more cost effective road rehabilitation strategies
- New roads data tied to asphalt performance
- Improved roads deterioration curves
- Large scale LIDAR usage
- Identifying the reconstruction requirements for the LINC

Roadway Safety

- Implementation of the strategic road safety strategy that focuses on Vision Zero and the Complete Livable Better Streets principles
- Investigate infrastructure requirements for autonomous vehicles
LOOKING AHEAD 2022 – 2024

Major Right-of-Way Projects
• Stone Church Road – feeder watermain
• Rymal Road
• Waterdown East-West Bypass
• Nebo Road
• Claremont steel facing wall removals (bin walls)
• Claremont downbound resurfacing (with bin walls)

Transit
• Continue with the implementation of the 10-Year Transit Strategy with a focus on modal split and growth
• ReEnvision

Waste
• Prepare for the transition of the Blue Box Program to comply with the Waste-Free Ontario Act (Bill 151)
• Focus on green fleet/equipment initiatives
LOOKING AHEAD 2022 – 2024

Facilities

• Sir Wilfred Laurier Gymnasium – 2023
• Transit Maintenance Storage Facility construction phase (pending funding)
• Riverdale Community Hub – 2023
• Stadium Precinct Park – 2023

Other Major Initiatives

• Electric bus strategy development and pilot
• Woodward Wastewater Treatment Plant upgrades
• Dundas Wastewater Treatment Plant upgrades

PUBLIC WORKS 2021 OPERATING BUDGET
JANUARY 27, 2021
LOOKING AHEAD 2022 – 2024

• Develop Asset Management Plans for core assets and green infrastructure to comply with the *Infrastructure for Jobs and Prosperity Act* (O.Reg. 588/17)

• Undertake projects for parks Waterfront Trail redevelopment, shoreline protection and erosion control

• Participate in the evolution of the Hamilton Harbour Remedial Action Plan (HHRAP)

• Ongoing City projects related to the Waterfront Development
Energy and Emission Initiatives

- Implement revised Corporate Energy Policy
- Steps to advance toward our energy targets
  1) Improving efficiency
  2) Renewable energy
  3) Carbon credits

Upcoming Initiatives:

- Implementing Community Energy and Emissions Plan pathway recommendations (community and Public Works actions)
- Development of City Wide RNG Strategy
- Assess HRP long term renewable energy strategy
2021 Gross Capital and Operating Budgets
$1.326 billion

2021 GROSS BUDGET

RATE OPERATING
$245.6M
(FCS20073/Nov. 23)

RATE CAPITAL
$299.9M
(FCS20073/Nov. 23)

TAX CAPITAL
$391.3M
(FCS20101/Dec. 18)

GROSS TAX OPERATING
$388.9M

REVENUE
$122.8 M

TAX LEVY
$266.1 M

PUBLIC WORKS 2021 OPERATING BUDGET
JANUARY 27, 2021
ORGANIZATIONAL CHART

GENERAL MANAGER
Dan McKinnon
(1.00 FTE)

Administration
(1.00 FTE)

Strategy, Continuous Improvement & Quality
(5.00 FTE)

Energy, Fleet & Facilities Management
(179.95 FTE)

Engineering Services
(131.33 FTE)

Environmental Services
(504.37 FTE)

Hamilton Water*
(338.65 FTE)

Transportation Operations & Maintenance
(403.26 FTE)

Transit
(782.41 FTE)

<table>
<thead>
<tr>
<th>Complement (FTE)</th>
<th>Management</th>
<th>Other</th>
<th>Total</th>
<th>Staff to Mgt. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>32.00</td>
<td>1982.16</td>
<td>2014.16</td>
<td>61.94:1</td>
</tr>
<tr>
<td>2021</td>
<td>32.00</td>
<td>1976.32</td>
<td>2008.32</td>
<td>61.76:1</td>
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<tr>
<td>Change</td>
<td>0.00</td>
<td>(5.84)</td>
<td>(5.84)</td>
<td></td>
</tr>
</tbody>
</table>

* Complement excludes Hamilton Water
## 2021 OPERATING BUDGET BY DIVISION

### 2021 vs 2020 Net Change -

<table>
<thead>
<tr>
<th>Division</th>
<th>2020 Restated Net</th>
<th>2021 Preliminary Gross</th>
<th>2021 Preliminary Net</th>
<th>$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>PW-General Administration</td>
<td>709,400</td>
<td>724,880</td>
<td>724,880</td>
<td>15,480</td>
<td>2.2%</td>
</tr>
<tr>
<td>Energy Fleet and Facilities</td>
<td>12,778,750</td>
<td>23,386,380</td>
<td>13,207,430</td>
<td>428,680</td>
<td>3.4%</td>
</tr>
<tr>
<td>Engineering Services</td>
<td>-</td>
<td>21,243,920</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Environmental Services</td>
<td>82,909,900</td>
<td>107,926,830</td>
<td>88,355,900</td>
<td>5,446,000</td>
<td>6.6%</td>
</tr>
<tr>
<td>Transit</td>
<td>78,066,940</td>
<td>141,518,570</td>
<td>80,754,700</td>
<td>2,687,760</td>
<td>3.4%</td>
</tr>
<tr>
<td>Transportation Operations &amp; Maintenance</td>
<td>82,247,280</td>
<td>94,087,530</td>
<td>83,077,280</td>
<td>830,000</td>
<td>1.0%</td>
</tr>
<tr>
<td><strong>Total Public Works - Tax</strong></td>
<td>256,712,270</td>
<td>388,888,110</td>
<td>266,120,190</td>
<td>9,407,920</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

### Amendment - Environmental Services: Blue Box Municipal Funding Allocation

(1,389,850) (0.6%)

### Total Public Works - Tax Less Amendments

8,018,070 3.1%
# 2021 Key Budget Drivers

## Total Preliminary Net Levy Increase

<table>
<thead>
<tr>
<th>Environmental Services</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curbside Waste Collection Contract - New</td>
<td>$2,936,820</td>
<td>1.1%</td>
</tr>
<tr>
<td>Organics Processing Contract - New</td>
<td>$899,210</td>
<td>0.4%</td>
</tr>
<tr>
<td>Recycling Processing Contract</td>
<td>$598,280</td>
<td>0.2%</td>
</tr>
<tr>
<td>Recycling Program Revenue Pressure</td>
<td>$1,491,690</td>
<td>0.6%</td>
</tr>
<tr>
<td>Transfer Station / Community Recycling Centres Contract</td>
<td>$(1,542,960)</td>
<td>(0.6%)</td>
</tr>
<tr>
<td>Increased Blue Box Municipal Funding Allocation</td>
<td>$(1,389,850)</td>
<td>(0.5%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transit</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reductions to Underperforming Routes (PW20015) (ERC $857K &amp; Vehicle $103K)</td>
<td>$(960,230)</td>
<td>(0.4%)</td>
</tr>
<tr>
<td>Contribution to Reserve to fund PRESTO commissions that will be incurred when ridership recovers</td>
<td>$1,341,000</td>
<td>0.5%</td>
</tr>
<tr>
<td>Elimination of Paper Fare Media ($366K) &amp; PRESTO Device Refresh ($200K)</td>
<td>$(565,500)</td>
<td>(0.2%)</td>
</tr>
<tr>
<td>Transit Fleet Reserve Inflationary Increase</td>
<td>$207,470</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOM</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced Energy Costs LED Streetlighting</td>
<td>$(183,000)</td>
<td>(0.1%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All PW</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Related Costs (Net) - Excludes ERC related to Underperforming Routes</td>
<td>$4,585,750</td>
<td>1.8%</td>
</tr>
<tr>
<td>Insurance and Vehicle Insurance Charges</td>
<td>$486,540</td>
<td>0.2%</td>
</tr>
<tr>
<td>Computer Hardware Lease Charges - New Subscription based</td>
<td>$208,420</td>
<td>0.1%</td>
</tr>
<tr>
<td>Fuel – Diesel &amp; Unleaded (Rate decrease from 1.04/L Diesel and 1.10/L Unleaded to 1.00/L for both)</td>
<td>$(890,510)</td>
<td>(0.3%)</td>
</tr>
<tr>
<td>Right Sizing Budget</td>
<td>$(410,440)</td>
<td>(0.2%)</td>
</tr>
</tbody>
</table>

( ) Denotes budget savings
## HISTORICAL BUDGET INCREASES

<table>
<thead>
<tr>
<th></th>
<th>2018 Approved</th>
<th>2019 Approved</th>
<th>2020 Approved</th>
<th>2021 Preliminary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ Change from 2017</td>
<td>% Change from 2017</td>
<td>$ Change from 2018</td>
<td>% Change from 2018</td>
</tr>
<tr>
<td><strong>Total Net Levy Increase</strong></td>
<td>8,486,320</td>
<td>3.8%</td>
<td>11,163,190</td>
<td>4.8%</td>
</tr>
<tr>
<td><strong>Key Drivers:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRANSIT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Year Transit Strategy (Net)</td>
<td>2,188,000</td>
<td>1.0%</td>
<td>1,784,000</td>
<td>0.8%</td>
</tr>
<tr>
<td>PRESTO Operating Agreement</td>
<td>356,000</td>
<td>0.2%</td>
<td>642,000</td>
<td>0.3%</td>
</tr>
<tr>
<td>Transit Fleet Reserve</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DARTS Ridership Growth</td>
<td>1,680,000</td>
<td>0.8%</td>
<td>4,284,000</td>
<td>1.9%</td>
</tr>
<tr>
<td><strong>ENVS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curbside Waste Collection Contract - New</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organics Processing Contract - New</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>What the Net Levy would be excluding Key Drivers</strong></td>
<td>4,262,320</td>
<td>1.9%</td>
<td>3,837,190</td>
<td>1.6%</td>
</tr>
</tbody>
</table>
### Multi-Year Outlook

<table>
<thead>
<tr>
<th>Year</th>
<th>Budget 2022</th>
<th>% Change from 2021</th>
<th>Budget 2023</th>
<th>% Change from 2022</th>
<th>Budget 2024</th>
<th>% Change from 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>$279,928,580</td>
<td>5.2%</td>
<td>$291,192,200</td>
<td>4.0%</td>
<td>$302,933,390</td>
<td>4.0%</td>
</tr>
<tr>
<td>2023</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Public Works - Tax Net Levy**

**Key Transit Drivers:**
- DARTS Ridership Growth: $1,720,000 (2022), $1,820,000 (2023), $1,950,000 (2024)
- 10 Year Transit Strategy (Net): $4,144,000 (2022), $3,315,000 (2023), $3,085,000 (2024)
- Transit Fleet Reserve Inflationary Increase: $229,800 (2022), $252,800 (2023), $276,490 (2024)

**Key Environmental Services Drivers:**
- Various Contractual Agreements: $2,562,790 (2022), $1,123,390 (2023), $966,230 (2024)
2021 PRELIMINARY TAX OPERATING BUDGET: Divisions
## 2021 OPERATING BUDGET
### ENERGY, FLEET & FACILITIES

### Energy Fleet and Facilities

<table>
<thead>
<tr>
<th>Service</th>
<th>2020 Restated Net</th>
<th>2021 Preliminary Gross</th>
<th>2021 Preliminary Net</th>
<th>$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet Services</td>
<td>30,990</td>
<td>1,488,390</td>
<td>62,630</td>
<td>31,640</td>
<td>102.1%</td>
</tr>
<tr>
<td>Corporate Facility Ops &amp; Tech</td>
<td>2,187,480</td>
<td>3,371,850</td>
<td>1,940,150</td>
<td>(247,330)</td>
<td>(11.3%)</td>
</tr>
<tr>
<td>Facilities Planning and Business Solutions</td>
<td>801,460</td>
<td>1,628,130</td>
<td>942,270</td>
<td>140,810</td>
<td>17.6%</td>
</tr>
<tr>
<td>Community Facility Ops &amp; Tech Serv</td>
<td>6,527,270</td>
<td>6,609,990</td>
<td>6,609,990</td>
<td>82,720</td>
<td>1.3%</td>
</tr>
<tr>
<td>Sports &amp; Entertainment Facilities</td>
<td>2,907,000</td>
<td>6,329,710</td>
<td>3,097,410</td>
<td>190,410</td>
<td>6.6%</td>
</tr>
<tr>
<td>Director EFF</td>
<td>307,220</td>
<td>335,370</td>
<td>312,540</td>
<td>5,320</td>
<td>1.7%</td>
</tr>
<tr>
<td>Energy Initiatives</td>
<td>3,290</td>
<td>950,320</td>
<td>-</td>
<td>(3,290)</td>
<td>(100.0%)</td>
</tr>
<tr>
<td>Strategic Plan &amp; Capital Compliance</td>
<td>14,040</td>
<td>2,672,620</td>
<td>242,440</td>
<td>228,400</td>
<td>1,626.8%</td>
</tr>
<tr>
<td><strong>Total Energy Fleet and Facilities</strong></td>
<td>12,778,750</td>
<td>23,386,380</td>
<td>13,207,430</td>
<td>428,680</td>
<td>3.4%</td>
</tr>
</tbody>
</table>
## 2021 ENERGY, FLEET & FACILITIES MANAGEMENT

### BUDGET DRIVERS

<table>
<thead>
<tr>
<th>Item</th>
<th>Impact ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractual Pressures</td>
<td>$233</td>
</tr>
<tr>
<td>Employee Related Costs (Net)</td>
<td>$164</td>
</tr>
<tr>
<td>Fuel – Diesel &amp; Unleaded</td>
<td>($111)</td>
</tr>
<tr>
<td>Insurance and Vehicle Insurance Charges</td>
<td>($43)</td>
</tr>
</tbody>
</table>
DIRECTOR
Gord McGuire
(1.00 FTE)

Administration
(1.00 FTE)

Asset Management
(28.00 FTE)

Construction
(37.67 FTE)

Design
(26.66 FTE)

Geomatics & Corridor Management
(34.00 FTE)

Waterfront Development
(3.00 FTE)

<table>
<thead>
<tr>
<th>Complement (FTE)</th>
<th>Management</th>
<th>Other</th>
<th>Total</th>
<th>Staff to Mgt. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>6.00</td>
<td>125.33</td>
<td>131.33</td>
<td>20.89:1</td>
</tr>
<tr>
<td>2021</td>
<td>6.00</td>
<td>125.33</td>
<td>131.33</td>
<td>20.89:1</td>
</tr>
<tr>
<td>Change</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>
2021 OPERATING BUDGET
ENGINEERING SERVICES

Engineering Services

-2021 vs 2020 Net Change-

<table>
<thead>
<tr>
<th></th>
<th>2020 Restated Net</th>
<th>2021 Preliminary Gross</th>
<th>2021 Preliminary Net</th>
<th>$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Management</td>
<td>-</td>
<td>3,555,150</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Construction</td>
<td>-</td>
<td>4,838,800</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Design Services</td>
<td>-</td>
<td>3,070,970</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Director of Engineering Services</td>
<td>-</td>
<td>2,014,590</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Geomatics and Corridor Management</td>
<td>-</td>
<td>7,082,980</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Waterfront Development</td>
<td>-</td>
<td>681,430</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total Engineering Services</td>
<td>-</td>
<td>21,243,920</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

- Costs are mainly recovered from capital
ENVIRONMENTAL SERVICES

DIRECTOR
Craig Murdoch
(1.00 FTE)

Administration
(1.00 FTE)

SPM Continuous Improvement
(1.00 FTE)

Forestry & Horticulture
(106.67 FTE)

Parks & Cemeteries
(252.02 FTE)

Waste Collections
(93.41 FTE)

Recycling & Waste Disposal
(13.00 FTE)

Landscape Architectural Services
(13.34 FTE)

Business Programs
(17.93 FTE)

<table>
<thead>
<tr>
<th>Complement (FTE)</th>
<th>Management</th>
<th>Other</th>
<th>Total</th>
<th>Staff to Mgt. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>7.00</td>
<td>497.21</td>
<td>504.21</td>
<td>71.03:1</td>
</tr>
<tr>
<td>2021</td>
<td>7.00</td>
<td>497.37</td>
<td>504.37</td>
<td>71.05:1</td>
</tr>
<tr>
<td>Change</td>
<td>0.00</td>
<td>0.16</td>
<td>0.16*</td>
<td></td>
</tr>
</tbody>
</table>

* Increase of 0.16 FTE for the floral beautification of traffic islands and medians (approved under Public Works Committee Report 20-007)
### Environmental Services

<table>
<thead>
<tr>
<th></th>
<th>2020 Restated Net</th>
<th>2021 Preliminary Gross</th>
<th>2021 Preliminary Net</th>
<th>$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recycling &amp; Waste Disposal</td>
<td>7,282,090</td>
<td>21,736,110</td>
<td>8,343,560</td>
<td>1,061,470</td>
<td>14.6%</td>
</tr>
<tr>
<td>Waste Collections</td>
<td>32,884,030</td>
<td>36,136,670</td>
<td>36,094,670</td>
<td>3,210,640</td>
<td>9.8%</td>
</tr>
<tr>
<td>Business Programs</td>
<td>2,173,310</td>
<td>2,470,940</td>
<td>2,353,990</td>
<td>180,680</td>
<td>8.3%</td>
</tr>
<tr>
<td>Director Environ Services</td>
<td>(699,450)</td>
<td>(701,070)</td>
<td>(701,070)</td>
<td>(1,620)</td>
<td>0.2%</td>
</tr>
<tr>
<td>Forestry &amp; Horticulture</td>
<td>13,366,270</td>
<td>15,046,150</td>
<td>13,658,030</td>
<td>291,760</td>
<td>2.2%</td>
</tr>
<tr>
<td>Landscape &amp; Architectural Serv</td>
<td>109,740</td>
<td>2,079,200</td>
<td>104,050</td>
<td>(5,690)</td>
<td>(5.2%)</td>
</tr>
<tr>
<td>Parks &amp; Cemeteries</td>
<td>27,793,910</td>
<td>31,158,830</td>
<td>28,502,670</td>
<td>708,760</td>
<td>2.6%</td>
</tr>
<tr>
<td><strong>Total Environmental Services</strong></td>
<td>82,909,900</td>
<td>107,926,830</td>
<td>88,355,900</td>
<td>5,446,000</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

Amendment - Blue Box Municipal Funding Allocation: (1,389,850) (1.7%)

Total Environmental Services - Tax Less Amendments: 4,056,150 4.9%
## 2021 ENVIRONMENTAL SERVICES

### BUDGET DRIVERS

<table>
<thead>
<tr>
<th>Item</th>
<th>Impact ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curbside Waste Collection Contract</td>
<td>$2,937</td>
</tr>
<tr>
<td>Recycling Program Revenue Pressure</td>
<td>$1,492</td>
</tr>
<tr>
<td>Employee Related Costs (Net)</td>
<td>$1,049</td>
</tr>
<tr>
<td>Organics Processing Contract</td>
<td>$899</td>
</tr>
<tr>
<td>Recycling Processing Contract</td>
<td>$598</td>
</tr>
<tr>
<td>Insurance and Vehicle Insurance Charges</td>
<td>$222</td>
</tr>
<tr>
<td>Transfer Station / Community Recycling Centres Contract</td>
<td>($1,543)</td>
</tr>
<tr>
<td>Increased Blue Box Municipal Funding Allocation</td>
<td>($1,390)</td>
</tr>
<tr>
<td>Right Sizing Budget</td>
<td>($355)</td>
</tr>
<tr>
<td>Fuel – Diesel &amp; Unleaded</td>
<td>($153)</td>
</tr>
</tbody>
</table>
## Transportation Operations & Maintenance

<table>
<thead>
<tr>
<th></th>
<th>2020 Restated Net</th>
<th>2021 Preliminary Gross</th>
<th>2021 Preliminary Net</th>
<th>$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadway Maintenance</td>
<td>63,159,250</td>
<td>65,876,140</td>
<td>63,672,100</td>
<td>512,850</td>
<td>0.8%</td>
</tr>
<tr>
<td>Director – Trans Ops &amp; Mtce</td>
<td>(627,440)</td>
<td>(624,700)</td>
<td>(624,700)</td>
<td>2,740</td>
<td>(0.4%)</td>
</tr>
<tr>
<td>Transportation Operations</td>
<td>15,710,570</td>
<td>24,621,970</td>
<td>15,875,160</td>
<td>164,590</td>
<td>1.0%</td>
</tr>
<tr>
<td>Business Initiatives</td>
<td>4,004,900</td>
<td>4,214,120</td>
<td>4,154,720</td>
<td>149,820</td>
<td>3.7%</td>
</tr>
<tr>
<td><strong>Total Transportation Operations &amp; Maintenance</strong></td>
<td><strong>82,247,280</strong></td>
<td><strong>94,087,530</strong></td>
<td><strong>83,077,280</strong></td>
<td><strong>830,000</strong></td>
<td><strong>1.0%</strong></td>
</tr>
</tbody>
</table>
## 2021 TRANSPORTATION OPERATIONS & MAINTENANCE BUDGET DRIVERS

<table>
<thead>
<tr>
<th>Item</th>
<th>Impact ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Related Costs (Net)</td>
<td>$898</td>
</tr>
<tr>
<td>Insurance and Vehicle Insurance Charges</td>
<td>$266</td>
</tr>
<tr>
<td>Fuel – Diesel &amp; Unleaded</td>
<td>($226)</td>
</tr>
<tr>
<td>Savings in Energy / Streetlighting Costs</td>
<td>($183)</td>
</tr>
<tr>
<td>Right Sizing Budget</td>
<td>($55)</td>
</tr>
</tbody>
</table>
TRANSIT

DIRECTOR
Debbie Dalle Vedove
(1.00 FTE)

Administration
(1.00 FTE)

SPM Continuous Improvement
(1.00 FTE)

Transit Operations
(594.00 FTE)

Transit Fleet Maintenance
(134.57 FTE)

Customer Experience & Innovation
(20.34 FTE)

Transit Support Services
(15.00 FTE)

Transit Planning & Infrastructure
(15.50 FTE)

<table>
<thead>
<tr>
<th>Complement</th>
<th>Management</th>
<th>Other</th>
<th>Total</th>
<th>Staff to Mgt Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2020</strong></td>
<td>6.00</td>
<td>782.41</td>
<td>788.41</td>
<td>130.40:1</td>
</tr>
<tr>
<td><strong>2021</strong></td>
<td>6.00</td>
<td>776.41</td>
<td>782.41</td>
<td>129.40:1</td>
</tr>
<tr>
<td><strong>Change</strong></td>
<td>0.00</td>
<td>(6.00)</td>
<td>(6.00)*</td>
<td></td>
</tr>
</tbody>
</table>

* Decrease of 6 FTE due to underperforming routes (approved under report PW20015)
## 2021 OPERATING BUDGET
### TRANSIT

### Transit

<table>
<thead>
<tr>
<th></th>
<th>2020 Restated Net</th>
<th>2021 Preliminary Gross</th>
<th>2021 Preliminary Net</th>
<th>$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Experience and Innovation</td>
<td>25,947,090</td>
<td>28,470,780</td>
<td>26,044,480</td>
<td>97,390</td>
<td>0.4%</td>
</tr>
<tr>
<td>Transit Planning and Infrastructure</td>
<td>2,964,980</td>
<td>3,030,870</td>
<td>3,030,870</td>
<td>65,890</td>
<td>2.2%</td>
</tr>
<tr>
<td>Support Services</td>
<td>2,098,650</td>
<td>1,802,990</td>
<td>1,801,990</td>
<td>(296,660)</td>
<td>(14.1%)</td>
</tr>
<tr>
<td>Director of Transit</td>
<td>127,110</td>
<td>140,730</td>
<td>140,730</td>
<td>13,620</td>
<td>10.7%</td>
</tr>
<tr>
<td>Financial Charges &amp; General Revenue</td>
<td>(35,618,720)</td>
<td>17,669,230</td>
<td>(33,557,140)</td>
<td>2,061,580</td>
<td>(5.8%)</td>
</tr>
<tr>
<td>Operations HSR</td>
<td>50,439,060</td>
<td>58,255,830</td>
<td>51,355,470</td>
<td>916,410</td>
<td>1.8%</td>
</tr>
<tr>
<td>Transit Fleet</td>
<td>32,108,770</td>
<td>32,148,140</td>
<td>31,938,300</td>
<td>(170,470)</td>
<td>(0.5%)</td>
</tr>
<tr>
<td><strong>Total Transit</strong></td>
<td>78,066,940</td>
<td>141,518,570</td>
<td>80,754,700</td>
<td>2,687,760</td>
<td>3.4%</td>
</tr>
</tbody>
</table>
# 2021 TRANSIT BUDGET DRIVERS

<table>
<thead>
<tr>
<th>Item</th>
<th>Impact ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Related Costs (Net) – Excludes Underperforming Routes</td>
<td>$2,382</td>
</tr>
<tr>
<td>Reductions to Underperforming Routes (PW20015) (Employee related costs $857K &amp; Vehicle $103K)</td>
<td>($960)</td>
</tr>
<tr>
<td>Contribution to Reserve to fund PRESTO commissions that will be incurred when ridership recovers</td>
<td>$1,341</td>
</tr>
<tr>
<td>Elimination of Paper Fare Media ($366K) &amp; PRESTO Device Refresh ($200K)</td>
<td>($566)</td>
</tr>
<tr>
<td>Transit Fleet Reserve Inflationary Increase</td>
<td>$207</td>
</tr>
<tr>
<td>Fuel – Diesel &amp; Unleaded</td>
<td>($395)</td>
</tr>
</tbody>
</table>
THANK YOU