

Branch — Transportation Operations

Introduction

Transportation Operations enables the effective operation of the existing transportation network. It ensures that thousands of pedestrians, motorists and cyclists can move safely and efficiently in the city. Branch activities support a wide range of services including operating the traffic signal network, snow and ice control, maintaining streetlighting, performing roadway maintenance and delivery of traffic safety and automated enforcement programs.

Roadway Maintenance

Roadway Maintenance works to preserve and increase the service life of our roadway assets. This group is responsible for spring clean-up and the street cleaning campaign as well as providing roadway infrastructure maintenance and repairs such as pothole filling, patch paving and sidewalk repair. The group is also responsible for microsurfacing roadways as part of neighbourhood renewal program.



Snow and Ice Control

Transportation Operations is committed to providing effective snow and ice control that make it possible for all modes; pedestrians, bicyclists, transit users, automobiles and goods movement vehicles, to commute and travel safely in all seasons. A priority system is applied to roadways and sidewalks in order to keep traffic flowing smoothly during any given snow event. This group is also responsible for managing snow storage and sand recycling facilities.

Engineering Services

The Engineering Services section provides engineering expertise in several specialized areas to support all City departments as well as other municipalities and external agencies such as EPCOR. The section's areas of expertise include geotechnical and environmental engineering, landslide and erosion repair and materials engineering. Engineering services provides construction materials research and testing, construction quality assurance, pavement structural design and analysis and

construction survey services.

Environmental management programs include noise and vibration monitoring, contaminated site remediation, monitoring and reporting of meltwater from snow storage facilities and the aggregate recycling program.



Traffic Operations, Signals and Street Lighting

Traffic Operations designs and manages Edmonton's traffic signals and streetlights to optimize traffic flow for all road users with an emphasis on transit and goods movement. The group manages maintenance of signals, signage and streetlight infrastructure in coordination with EPCOR. The Traffic Management Centre operates traffic signals, traffic cameras, message signs and other technology to move traffic safely and efficiently through the city.

Traffic Operations manages traffic control and traffic bylaws. This group is responsible for traffic signing and on-street traffic control including temporary approvals and detours for construction projects or special events. Traffic control also manages on-street parking, parking management and the bylaws regarding parking, traffic and speed.

Traffic Safety and Automated Enforcement

Traffic safety is important for citizens and a major priority for the City of Edmonton. The Office of Traffic Safety (OTS) is committed to maintaining a safe Transportation System in the City of Edmonton through education, engineering, enforcement and evaluation.

The Office of Traffic Safety evaluates traffic data to manage local traffic, reduce speed, deter risky driver behavior and reduce collisions, especially ones that involve injury. Additionally, the OTS installs and manages intersection safety cameras and photo radar enforcement at various locations throughout the city. The Office of Traffic Safety also works closely with many organizations such as the Edmonton Police Service, Edmonton Federation of Community Leagues and various schools.

Branch — Transportation Operations

Approved 2015 Budget – Branch Summary

| (\$000) | 2013 Actual | 2014 Budget | 2015 Budget | \$ Change '14-'15 | % Change '14-'15 |
|--|------------------|------------------|------------------|-------------------------|------------------------|
| Revenue & Transfers | | | | | |
| User Fees, Fines, and Permits | 57,983 | 43,567 | 14,293 | (29,274) | (67.2) |
| Grants | 16 | - | - | - | |
| Transfer from Reserves | - | - | 19,300 | 19,300 | |
| Total Revenue & Transfers | \$57,999 | \$43,567 | \$33,593 | (\$9,974) | (22.9) |
| Expenditure & Transfers | | | | | |
| Personnel | 76,650 | 75,461 | 77,064 | 1,603 | 2.1 |
| Materials, Goods, and Supplies | 45,225 | 33,057 | 37,166 | 4,109 | 12.4 |
| External Services | 39,773 | 34,482 | 38,309 | 3,827 | 11.1 |
| Fleet Services | 30,250 | 25,964 | 26,336 | 372 | 1.4 |
| Intra-municipal Charges | 4,233 | 7,904 | 7,497 | (407) | (5.1) |
| Utilities & Other Charges | 11,412 | 11,594 | 12,026 | 432 | 3.7 |
| Transfer to Reserves | 15,094 | 1,375 | 1,375 | - | - |
| Subtotal | 222,637 | 189,837 | 199,773 | 9,936 | 5.2 |
| Intra-municipal Recoveries | (31,776) | (26,748) | (26,815) | (67) | 0.3 |
| Total Expenditure & Transfers | \$190,861 | \$163,089 | \$172,958 | \$9,869 | 6.1 |
| Net Operating Requirement | \$132,862 | \$119,522 | \$139,365 | \$19,843 | 16.6 |
| Full-time Equivalents | 852.8 | 852.8 | 863.8 | 11.0 | |

Budget Changes for 2015

(\$000)

Revenue & Transfers - Changes

User Fees, Fines, Permits, etc. \$(29,274)

An \$826 increase in asphalt, sand and aggregate revenue is due to primarily higher demand from external customers. A \$500 increase in parking revenue from the operating impact of implementing the new Parking Control Technology capital project. A \$(500) reduction in cell tower rentals and waste bin permits. A \$(30,100) decrease in traffic safety and automated enforcement revenue resulting from transferring revenues to a reserve.

Transfer from Reserves \$19,300

Transfer of \$19,300 from the reserve to fund Traffic Safety and Automated Enforcement program.

Expenditures & Transfers - Changes

Personnel \$1,603

Movement toward job rate, changes in benefits and approved cost of living adjustment \$776. An increase of \$429 from the the Snow and Ice Policy Amendments, \$284 from the operating impact of implementing the new Parking Control Technology capital project, and \$114 for inventory growth from contributed assets impacting snow & ice control and street cleaning.

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Material, Goods & Supplies \$4,109

An increase of \$1,771 for hired equipment for Snow and Ice Policy Amendments. An increase of \$1,500 is attributed to a 20% increase over the last two years in cost of de-icing materials. A \$750 increase in the hired equipment volume and rate. A \$486 increase in hired equipment costs for inventory growth from contributed assets impacting snow & ice control and spring street cleaning. A \$(350) decrease to pay for the commercial vehicle unit in Community Standards. The remaining balance of \$(48) for various cost reductions.

External Services \$3,827

An increase of \$1,500 is attributed to sidewalk inventory growth from contributed assets impacting snow and ice. A \$500 increase for school zone speed limit enforcement. A \$500 increase for peace officers and image reviewers due to a higher volume of traffic safety violations. A \$375 increase for snow and ice control at transit facilities. An increase of \$272 for the inventory growth from contributed assets impacting streetlight and signals maintenance. An increase of \$250 for contract work relating to traffic safety. An increase of \$216 from the operating impact of implementing the new Parking Control Technology capital project. A \$125 increase in environmental waste disposal cost. An increase of \$80 for postage due to the volume of traffic safety tickets issued. Remaining \$9 for various cost increases.

Fleet Services \$372

There is a decrease of \$(294) for future replacement of the fleet based on the 2% initiative implemented by Fleet for 2015, there is a fuel savings of \$(134) and an increase of \$800 for maintaining the fleet.

Intra-municipal Charges \$(407)

A decrease of \$(402) for traffic engineering services related to traffic safety. Remaining decrease of \$(5) is a net change in various charges.

Utilities & Other Charges \$432

An increase of \$256 due to changes in utility rates. An increase of \$64 for the inventory growth from contributed assets impacting streetlight and signals maintenance. An increase of \$69 is primarily due to higher insurance claim costs related to system damages to assets such as posts and traffic signs. The remaining balance of \$43 is for various cost increases.

Intra-municipal Recoveries \$(67)

A net increase of \$(67) in various recoveries.

Full-time Equivalents - Changes

Full-time Equivalents increased by 11.0 which are all permanent positions. 6.0 FTEs from the Snow and Ice Policy Amendments. 3.0 FTEs from the operating impact of implementing the new Parking Control Technology capital project and 2.0 FTEs for inventory growth from contributed assets impacting snow & ice control and spring street cleaning.

Branch — Transportation Operations

Approved 2015 Budget – Program Summary

Program Name - Roadway Maintenance



[Link to 10-Year Strategic Goals](#)

Results to be Achieved

Maintenance of the transportation system means keeping roads, sidewalks and public spaces in good repair, clean and free from litter. A transportation system that is well-maintained in all seasons promotes economic vitality and a positive city image.

Cost Drivers

- Increasing roadway inventory.
- Decreasing roadway condition.
- Severity of winter season affecting spring roadway cleaning and pothole maintenance.

Service Standards

Roadways are cleaned in adherence to Roadway Cleaning Policy C550 which sets spring and summer roadway cleaning standards. The Risk-Based Infrastructure Management System assesses asset deterioration and uses a risk based approach to allocate the available infrastructure funding to the growing renewal needs. The Roadway Maintenance group strives to manage the roads, sidewalks and active mode infrastructure to minimize total life cycle costs, yet sustain levels of service and safety.

| Resources (\$000) | 2013 Actual | 2013 Budget | 2014 Budget | 2015 Budget |
|-------------------------------------|----------------|----------------|----------------|----------------|
| Revenue & Transfers | \$ 4,450 | \$ 2,387 | \$ 2,387 | \$ 2,387 |
| Expenditure & Transfers | 74,405 | 66,755 | 63,544 | 64,597 |
| Subtotal | 69,955 | 64,368 | 61,157 | 62,210 |
| Intra-municipal Recoveries | (12,656) | (6,908) | (7,028) | (7,131) |
| Net Operating Requirement | \$ 57,299 | \$ 57,460 | \$ 54,129 | \$ 55,079 |
| Management | | 1.0 | 1.0 | 1.0 |
| Professional/Technical/Union Exempt | | 15.0 | 15.0 | 15.0 |
| Union | | 300.7 | 300.7 | 301.7 |
| Temporary | | 29.2 | 29.2 | 29.2 |
| Full - Time Equivalents | | 345.9 | 345.9 | 346.9 |

2014 Services

- Executed the spring street sweeping campaign between April 22 until June 17.
- Recovered two thirds of the applied winter abrasive material during street sweeping program to recycle for future winter season use.
- Completed repairs and maintenance to roadways and roadway infrastructure to maintain safe conditions and preserve the asset value of the roadway network.
- Filled over 600,000 potholes.
- Microsurfaced roadways in Athelon and Rideau Park to increase service life of infrastructure.
- Completion of Arterial Road Strategy for renewal and reinvestment in the City's arterial road network.

Changes in Services for 2015

- Maintain current levels of service on the growing roadway and active transportation network
- Development of an over-arching Road Renewal Strategy which links the Neighborhood Renewal, Arterial Road.
- Strategy and the Bridge Investment Model into one guiding document

Branch — Transportation Operations

Approved 2015 Budget – Program Summary

Program Name - Snow & Ice Control

[Link to 10-Year Strategic Goals](#)



Results to be Achieved

The Snow and Ice Control program ensures that the transportation network is maintained to allow all users to travel safely during the winter season. Effective snow and ice control minimizes economic loss to the community, protects the environment and facilitates the movement of emergency vehicles.

Cost Drivers

- Changes to the service standards.
- Increases to the roadway inventory.
- Fluctuations in winter conditions.

Service Standards

Services are delivered in accordance with the Snow and Ice Control Policy C409G. Freeways and major roadways are sanded regularly and plowed within 36 hours of a snowfall. Collectors and major transit routes are sanded regularly and plowed within 48 hours. Local roadways are bladed to a level snowpack starting within 48 hours and completed within 5 days.

| Resources (\$000) | 2013 Actual | 2013 Budget | 2014 Budget | 2015 Budget |
|-------------------------------------|----------------|----------------|----------------|----------------|
| Revenue & Transfers | \$ 177 | \$ 13 | \$ 13 | \$ 13 |
| Expenditure & Transfers | 73,949 | 53,548 | 54,937 | 61,462 |
| Subtotal | 73,772 | 53,535 | 54,924 | 61,449 |
| Intra-municipal Recoveries | (2,924) | (1,669) | (786) | (1,057) |
| Net Operating Requirement | \$ 70,848 | \$ 51,866 | \$ 54,138 | \$ 60,392 |
| Management | | - | - | - |
| Professional/Technical/Union Exempt | | - | - | - |
| Union | | 174.3 | 174.3 | 181.3 |
| Temporary | | 27.0 | 27.0 | 27.0 |
| Full - Time Equivalents | | 201.3 | 201.3 | 208.3 |

2014 Services

- Managed snow and ice program as per the Snow and Ice Control Policy C409G.
- Sanded and plowed roadways as per service standards.
- Bladed all residential roadways within 5 days to a 5 cm snow pack.
- Plowed snow from shared use paths and sidewalks adjacent to City owned land within 48 hours.
- Removed snow as required from roadways according to priority.
- Reused sand recovered during spring street sweeping campaign.
- Initiated One Side Parking Bank pilot project for enhanced snow control in two neighborhoods.

Changes in Services for 2015

- Service level changes proposed to the Snow and Ice Control Policy C409G are incorporated as unfunded service packages in the 2015 Operating budget.
 - Implementation of service level enhancements and amendment to Snow and Ice Control Policy C409G to reflect new service level requirements.
 - Enhancements to the customer service process for better integration between 311 and snow removal program.
- * Note: Management and Professional/Technical/Union Exempt FTEs for Snow and Ice Control are included in Roadway Maintenance. '

Branch — Transportation Operations

Approved 2015 Budget – Program Summary

Program Name - Engineering Services

[Link to 10-Year Strategic Goals](#)



Results to be Achieved

Engineering Services provides geo-environmental and pavement engineering, construction materials testing and research, geomatic services and aggregate materials processing services. This work is done primarily to support Transportation's roadway construction and maintenance programs, but is also routinely performed for other civic departments.

Cost Drivers

- Increase in the number and scale of capital roadway construction and maintenance programs.
- Increase in the number and complexity of private development applications.
- Increase in the quantity of city infrastructure requiring protection, maintenance or construction.
- Increase in the number of contaminated sites requiring investigation or remediation.

Service Standards

This group ensures that the materials and construction techniques being delivered to the City meet contractual requirements and that civic, provincial and federal regulations and environmental management standards are achieved. The group is responsible for the production of low cost and high quality recycled aggregate products for use on City roadway construction and maintenance projects.

| Resources (\$000) | 2013 Actual | 2013 Budget | 2014 Budget | 2015 Budget |
|-------------------------------------|----------------|----------------|----------------|----------------|
| Revenue & Transfers | 2,029 | \$ 567 | \$ 567 | \$ 1,393 |
| Expenditure & Transfers | 10,306 | 10,673 | 11,618 | 13,108 |
| Subtotal | 8,277 | 10,106 | 11,051 | 11,715 |
| Intra-municipal Recoveries | (6,994) | (8,134) | (8,900) | (9,677) |
| Net Operating Requirement | \$ 1,283 | \$ 1,972 | \$ 2,151 | \$ 2,038 |
| Management | | 2.0 | 2.0 | 2.0 |
| Professional/Technical/Union Exempt | | 16.0 | 16.0 | 16.0 |
| Union | | 65.0 | 65.0 | 65.0 |
| Temporary | | 15.2 | 15.2 | 15.2 |
| Full - Time Equivalents | | 98.2 | 98.2 | 98.2 |

2014 Services

- Provided field and laboratory testing for quality assurance of the construction materials and techniques.
- Provided pavement engineering design and roadway rehabilitation expertise.
- Provided construction surveying and geomatic services for Transportation Services.
- Provided environmental engineering and contaminated site remediation expertise.
- Monitored melt water discharges and groundwater related to the City's snow storage facilities.
- Provided monitoring for vibrations, noise, groundwater and slope movement instrumentation.
- Provided geotechnical reviews and expertise on a variety of building projects, landslides and development applications.
- Managed the Aggregate Materials Processing Program.

Changes in Services for 2015

- No changes in services are planned for 2015.

Branch — Transportation Operations

Approved 2015 Budget – Program Summary

Program Name - Traffic Operations, Signals and Street Lighting

[Link to 10-Year Strategic Goals](#)



Results to be Achieved

Traffic Operations provides the services that allow for the safe and efficient direction of all roadway users. The program provides traffic control management, right-of-way management, streetlight and signal maintenance, road and base mapping, road markings, on-street parking, as well as development and compliance of the City's traffic bylaws.

Cost Drivers

- Contract costs with EPCOR.
- Inventory and condition of traffic signals, signs, pavement markings and street lights.
- City land development, demand for underground locates, construction industry trends and utility rates.

Service Standards

Traffic Operations, Signals and Street Lighting ensures the safe and efficient operation of streetlights, signs, traffic signals, on-street parking meters, and citywide pavement markings. Adherence to the Street Lighting Renewal Policy C564 provides safe levels of residential lighting while minimizing light pollution, power consumption and greenhouse gas generation. This group ensures traffic infrastructure is implemented and maintained to civic, provincial and federal standards and regulations.

| Resources (\$000) | 2013 Actual | 2013 Budget | 2014 Budget | 2015 Budget |
|-------------------------------------|----------------|----------------|----------------|----------------|
| Revenue & Transfers | \$ 10,064 | \$ 10,850 | \$ 10,500 | \$ 10,500 |
| Expenditure & Transfers | 40,487 | 43,707 | 45,338 | 45,706 |
| Subtotal | 30,423 | 32,857 | 34,838 | 35,206 |
| Intra-municipal Recoveries | (9,202) | (8,893) | (10,034) | (8,950) |
| Net Operating Requirement | \$ 21,221 | \$ 23,964 | \$ 24,804 | \$ 26,256 |
| Management | | 3.0 | 3.0 | 3.0 |
| Professional/Technical/Union Exempt | | 31.0 | 30.0 | 33.0 |
| Union | | 123.0 | 124.0 | 130.0 |
| Temporary | | 14.4 | 14.4 | 8.4 |
| Full - Time Equivalents | | 171.4 | 171.4 | 174.4 |

2014 Services

- Operated and maintained over 99,000 streetlights, 140,000 signs, 1,100 traffic signals and 3,300 on-street parking meters.
- Assessed and optimized the roadway networks traffic signal timings to accommodate all modes.
- Installed, operated, managed and maintained traffic signals, traffic signs, markings and streetlight infrastructure to City standards.
- Managed traffic routes and volumes for temporary traffic disruptions and special events with signs, detours, barricades and signal timings to promote efficient flow of vehicles, pedestrians and transit.
- Provided on-street parking meters and residential parking programs.
- Installed LED streetlights to promote environmental stewardship and energy cost savings.
- Provisions of services for major special events including ITU World Triathlon, FIFA, and Tour of Alberta.

Changes in Services for 2015

- Manage GeoEdmonton partnership alliance.
- Implement Light Efficient Community Policy and LED Streetlight Replacement Project.
- Enhancements of services to Business Revitalization Zones.
- Implementation of E-Park Parking System for on and off street parking facilities.

Branch — Transportation Operations

Approved 2015 Budget – Program Summary

Program Name - Traffic Safety and Automated Enforcement



[Link to 10-Year Strategic Goals](#)

Results to be Achieved

The Office of Traffic Safety strives to make Edmonton's roads and communities safer through education, engineering, enforcement and evaluation. A safe transportation system contributes to a strong sense of community and the liveability of our city.

Cost Drivers

- Driver behaviour
- Equipment performance and use of technology
- Specialized knowledge

Service Standards

The Office of Traffic Safety works to continually improve the safety of the roadways as outlined in the Traffic Safety Strategy and the Implementation of Safety Measures Around Schools Policy C514. The Traffic Safety Strategy focuses on reducing traffic collisions, increasing seat belt wearing rate, and reducing the incidence of impaired driving. Automated enforcement equipment is used to deter dangerous driving, coordinated with the Edmonton Police Service to enforce traffic laws and bylaws.

| Resources (\$000) | 2013 Actual | 2013 Budget | 2014 Budget | 2015 Budget |
|-------------------------------------|----------------|----------------|----------------|----------------|
| Revenue & Transfers | \$ 41,279 | \$ 30,100 | \$ 30,100 | \$ 19,300 |
| Expenditure & Transfers | 23,490 | 14,400 | 14,400 | 14,900 |
| Subtotal | (17,789) | (15,700) | (15,700) | (4,400) |
| Intra-municipal Recoveries | - | - | - | - |
| Net Operating Requirement | \$ (17,789) | \$ (15,700) | \$ (15,700) | \$ (4,400) |
| Management | | 10.0 | 10.0 | 10.0 |
| Professional/Technical/Union Exempt | | - | - | - |
| Union | | 26.0 | 26.0 | 26.0 |
| Temporary | | - | - | - |
| Full - Time Equivalents | | 36.0 | 36.0 | 36.0 |

2014 Services

- Performed traffic safety reviews and collision data analysis
- Reviewed speed management initiatives and community safety programs
- Managed all various photo enforcement technologies and aspects of equipment purchase, certification, deployment, maintenance and violation processing
- Collaborated with Edmonton Police Services to address traffic safety through education, engineering and enforcement programs
- Promoted traffic safety, increase levels of awareness and provide education through the organization of events
- Enhance management and control of the program as a whole including all aspects of Automated Enforcement Violations
- Influence positive driver behaviour through advertising and public education

Changes in Services for 2015

- Continue with current enforcement strategies
- School Zone Enforcement

*Note: 53.0 FTEs supporting this program are part of various branches. The details for these FTEs are included on a prior page.

Branch — Transportation Operations

Program - Roadway Maintenance Title - RM Street Cleaning Inventory Growth

Operating Impacts of Contributed Assets Funded

Results to be Achieved

Funding will provide current service levels for increased inventory and maintain adherence to street cleaning policy - C550 Street Cleaning. Current resources of \$5.5M for 35.8 FTEs, materials and equipment that promotes the Corporate Outcome of achieving accessible communities that are safe and clean which is "The Way we Live".

Description

This service package identifies the funding required to maintain inventory increases in the roadway network, estimated at 1%. This package includes funding street cleaning to maintain current service levels set out in revised policy C550 - Roadway Cleaning. This package includes 1 permanent FTE. There is no direct impact to other departments as a result of this request.

Background

This 1% increase is based on 4 year forecast from City Economist.

Options

This forecast allows for inventory growth but does not change current service level. Should the initiative be undertaken externally, quality and control of services that are currently provided to citizens may be undermined.

Implications of Not Funding

Not funding service for increased inventory would result in decreased level of service.

| incremental | 2015 | | | | 2016 | | | | 2017 | | | |
|---------------|--------------|----------|------------|------------|--------------|----------|------------|----------|--------------|----------|------------|----------|
| (\$000) | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs |
| New Budget | 300 | - | 300 | 1.0 | 307 | - | 307 | - | 310 | - | 310 | - |
| Annualization | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | \$300 | - | 300 | 1.0 | \$307 | - | 307 | - | \$310 | - | 310 | - |

Branch — Transportation Operations

| | |
|--|---|
| Program - Snow and Ice Control Title - RM Snow & Ice Control Inventory Growth | Operating Impacts of Contributed Assets Funded |
|--|---|

Results to be Achieved

Funding will provide current service levels for increased inventory and maintain adherence to Snow and Ice control policy - C409G. Current resources of \$23.5M for 201.3 FTEs and de-icing materials. This program promotes the Corporate outcome of achieving accessible communities that are safe and clean which is "The Way we Live". In addition, this program supports a safe and integrated transportation system that gives citizens a choice to their mode of movement which supports "The Way we Move".

Description

This service package identifies the funding required to maintain inventory increases in the roadway network primarily from developer contributions for the Snow & Ice Control, estimated at 1% (\$300K), and includes 1 permanent FTE. There is no direct impact to other departments as a result of this request.

Background

This information is based on 4 year forecast from City Economist.

Options

This forecast allows for inventory growth but does not change current service level. Should the initiative be undertaken externally, quality and control of services that are currently provided to citizens may be undermined.

Implications of Not Funding

Not funding service for increased inventory would result in decreased level of service.

| incremental | 2015 | | | | 2016 | | | | 2017 | | | |
|---------------|--------------|----------|------------|------------|--------------|----------|------------|----------|--------------|----------|------------|----------|
| (\$000) | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs |
| New Budget | 300 | - | 300 | 1.0 | 307 | - | 307 | - | 310 | - | 310 | - |
| Annualization | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | \$300 | - | 300 | 1.0 | \$307 | - | 307 | - | \$310 | - | 310 | - |

Branch — Transportation Operations

Program - Snow and Ice Control

Title - RM Snow and Ice Control at Transit Facilities*

**Growth on Existing Services
Funded**

Results to be Achieved

Funding will provide current service levels for increased inventory and maintain adherence to Snow and Ice Control policy - C409G. Current resources of \$1M are contracted out. This service promotes the Corporate Outcome of achieving accessible communities that are safe and clean which is "The Way we Live" and gives citizens a choice to their mode of movement which supports "The Way we Move".

Description

This service package identifies the funding required to provide snow clearing at Transit Centres to the service level defined in the Snow and Ice Control Policy - C409G.

Background

Funding is required to ensure Transit Facilities are maintained to the level defined in the Snow and Ice Control policy: Clear snow from all sidewalks, ramps, stair and bus platforms at transit facilities within 24 hours after the snowfall. This will also ensure budget accountability is in one place for all snow-related activities.

Options

This forecast allows for inventory growth, but does not change current service level.

Implications of Not Funding

Not funding service would result in decreased level of service.

| incremental | 2015 | | | | 2016 | | | | 2017 | | | |
|---------------|------|-----|-----|------|------|-----|-----|------|------|-----|-----|------|
| (\$000) | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs |
| New Budget | 375 | - | 375 | - | - | - | - | - | - | - | - | - |
| Annualization | - | - | - | - | - | - | - | - | - | - | - | - |

Branch — Transportation Operations

Program - Snow and Ice Control
Title - SNIC Rapid Sidewalk inventory growth

**Operating Impacts of
Contributed Assets
Funded**

Results to be Achieved

Funding will provide current service levels for rapidly increased inventory and maintain adherence to Snow and Ice Control policy - C409G. The sidewalk clearing in this package refers to the services provided externally. Currently, the budget for this is \$2M in contract with no FTEs. This service promotes the Corporate Outcome of achieving accessible communities that are safe and clean which is "The Way we Live" and "The Way we Move".

Description

This service package identifies the funding required to maintain inventory increases in the roadway network primarily from developer contributions, new shared use paths with construction of LRT, roadway renewal and growth programs for the Snow & Ice Control, estimated at 2-2.5%. There is no direct impact to other departments as a result of this request.

Background

This information is based on 4 year forecast.

Options

This forecast allows for rapid inventory growth but does not change current service level. This initiative will be undertaken mainly by external resources.

Implications of Not Funding

Not funding service for increased inventory would result in decreased level of service.

| incremental | 2015 | | | | 2016 | | | | 2017 | | | |
|---------------|----------------|----------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| (\$000) | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs |
| New Budget | 1,500 | - | 1,500 | - | - | - | - | - | - | - | - | - |
| Annualization | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | \$1,500 | - | 1,500 | - | - | - | - | - | - | - | - | - |

Branch — Transportation Operations

Program - Snow and Ice Control

Title - Snow & Ice Control - Hired Equipment Volume & Rate*

Growth on Existing Services Funded

Results to be Achieved

Funding will provide budget to meet current service levels for an average winter and maintain adherence to Snow and Ice Control policy - C409G. Current Hired Equipment budget available is \$14.5M with no FTEs.

Description

This service package is to address the budget requirement for snow removal hired equipment. The required service hours is deficient by 37,000 hours. Using the industry rate as indicated in Alberta Roadbuilders and Heavy Construction Association (ARHCA) annual publications as a guide at \$82/hour, the shortfall is approximately \$3 million. Inflationary impacts are expected to be near 3%. There is no direct impact to other departments as a result of this request.

Background

The 2013 average rate for hired equipment enddumps used for the 2014 snow removal budget is approximately \$82/hour. The average annual hours of usage based on a 5 year analysis of the City of Edmonton is approximately 84,000 hours. The current 2014 approved budget only addresses 47,000 hours. Therefore, an underfunding of \$3 million (37,000 hours x \$82/hour) exists.

Options

Funding for snow and ice control does not meet the annual budget requirement for the current policy. Funding shortfall risk would be addressed through utilization of the financial stabilization reserve.

Implications of Not Funding

Funding shortfall risk could be addressed through utilization of the financial stabilization reserve.

| incremental | 2015 | | | | 2016 | | | | 2017 | | | |
|---------------|--------------|----------|------------|----------|-------------|----------|-----------|----------|-------------|----------|-----------|----------|
| (\$000) | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs |
| New Budget | 750 | - | 750 | - | 23 | - | 23 | - | 23 | - | 23 | - |
| Annualization | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | \$750 | - | 750 | - | \$23 | - | 23 | - | \$23 | - | 23 | - |

Branch — Transportation Operations

Program - Snow and Ice Control
Title - Snow & Ice Policy Amendments*

**New or Enhanced Service
Funded**

Results to be Achieved

Funding is to address approved amendments to the current Snow and Ice Control policy - C409G which increases current service levels (Transportation Committee report CR_876, May 21, 2014). No existing current budget for this enhanced service.

Description

This service package identifies the funding required to the approved amendments of the current Snow and Ice Control policy - C409G:

1. Set a maximum allowable reduction in roadway width on arterial roads at the point where snow removal would be initiated. Estimated annual cost of \$700K for additional snow removal/hauling.
2. Set a service level for snow removal from school on street drop off zones that would require snow removal from these zones after every major snow event where a full plowing cycle was completed. Estimated annual cost is \$500K.
3. Implement the use of skid steers to supplement the residential blading activity when required to clear windrows at driveways that are in excess of 30 cm high. Estimated annual cost of \$1M.

Background

Approved funding increase is based on current cost estimates for the services and additional resources required to meet the approved amendments to the Snow and Ice Control policy.

Options

This forecast is in response to the changes of current service level. Both internal and external resources will be required to meet the increased service level.

Implications of Not Funding

Funding shortfall risk could be addressed through utilization of the financial stabilization reserve.

| incremental | 2015 | | | | 2016 | | | | 2017 | | | |
|---------------|----------------|----------|--------------|------------|-------------|----------|-----------|----------|-------------|----------|-----------|----------|
| (\$000) | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs |
| New Budget | 2,200 | - | 2,200 | 6.0 | 55 | - | 55 | - | 56 | - | 56 | - |
| Annualization | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | \$2,200 | - | 2,200 | 6.0 | \$55 | - | 55 | - | \$56 | - | 56 | - |

Branch — Transportation Operations

| | |
|---|---|
| Program - Traffic Operations, Signals and Street Lighting Title - 2015 Inventory Growth-Signals [SL] | Operating Impacts of Contributed Assets Funded |
|---|---|

Results to be Achieved

This package promotes achievement of Effective Mobility, Improved Livability, Financial Sustainability and Transformed Urban Form by providing well-designed and sustainable streetlight infrastructure through regular maintenance while promoting personal safety for residents and traffic safety and efficiency for motorists. Current budget for Signals program is \$8M which includes 32.0 FTEs.

Description

This service package is to identify additional resources required to continually maintain a sustainable traffic signal system. An additional 21 new signals have been added to the City's inventory as a result of residential and commercial developments.

Background

The City of Edmonton continues to authorize development of new neighbourhoods and commercial business opportunities. New commercial developments contribute favourably to economic growth and financial prosperity. Additional traffic signals are required to control and maintain the flow of traffic in new developments. Traffic signals are paid by private developers.

Options

The City's signal maintenance and repair program is a contracted service currently performed by EPCOR under the Transportation Electrical Services Agreement.

Implications of Not Funding

Traffic signals control the flow of traffic and are considered a high priority for repair (24 hr response and repair). Adequate resources are required to ensure that traffic signals are maintained regularly and repaired immediately to ensure efficient traffic flow in and around the city.

| incremental | 2015 | | | | 2016 | | | | 2017 | | | |
|---------------|--------------|----------|------------|----------|------------|----------|----------|----------|------------|----------|----------|----------|
| (\$000) | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs |
| New Budget | 139 | - | 139 | - | 2 | - | 2 | - | 2 | - | 2 | - |
| Annualization | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | \$139 | - | 139 | - | \$2 | - | 2 | - | \$2 | - | 2 | - |

Branch — Transportation Operations

Program - Traffic Operations, Signals and Street Lighting Title - 2015 Inventory Growth-Streetlight [SL]

Operating Impacts of Contributed Assets Funded

Results to be Achieved

This package promotes achievement of Effective Mobility, Improved Livability, Financial Sustainability and Transformed Urban Form by providing well-designed and sustainable streetlight infrastructure through regular maintenance while promoting personal safety for residents and traffic safety and efficiency for motorists. Current budget for Street Lighting program is \$16M which includes 7.0 FTEs.

Description

This service package is to identify additional resources required to continually maintain a sustainable streetlight system. An additional 1800 streetlights have been added to the City's inventory as a result of residential and commercial developments.

Background

Private developers install new streetlighting in new neighbourhoods in accordance to the City's standards and specifications. A new neighbourhood will have approximately 200 streetlights, which are then added to the City's maintenance and repair programs. The City of Edmonton continues to authorize development of new neighbourhoods and commercial business opportunities.

Options

The City's streetlight maintenance and repair program is a contracted service currently performed by EPCOR under the Transportation Electrical Services Agreement.

Implications of Not Funding

There is a risk of falling poles and unlit areas which will compromise public safety if streetlights are not maintained on a regular basis.

| incremental | 2015 | | | | 2016 | | | | 2017 | | | |
|---------------|--------------|----------|------------|----------|------------|----------|----------|----------|------------|----------|----------|----------|
| (\$000) | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs |
| New Budget | 197 | - | 197 | - | 4 | - | 4 | - | 2 | - | 2 | - |
| Annualization | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | \$197 | - | 197 | - | \$4 | - | 4 | - | \$2 | - | 2 | - |

Branch — Transportation Operations

| | |
|---|--|
| Program - Traffic Operations, Signals and Street Lighting Title - Parking Control Technology | Operating Impacts of Capital Funded |
|---|--|

Results to be Achieved

Capital Profile 14-66-2570, Parking Control Technology, was approved by Council on July 16, 2014. The profile enables the replacement of 3,300 meters with new parking technology including supporting 5 off-street facilities for an existing inventory of approximately 6,000 stalls. New technology will provide for uniformity of parking management, pricing flexibility and additional customer payment options (e.g. credit card, cell phone) resulting in an overall improved customer experience. The new system will deliver additional efficiency in enforcement and payment collection. With a digitally based parking system, the resulting data will provide for the business intelligence needed to support improved parking planning. This service is in line with the City of Edmonton's 10 year Strategic Plan, "The Way Ahead". Current 2014 FTEs for parking management within Transportation Operations is 15.1 with Adjusted Budget of \$(5.4M) of which \$(6.9M) is budgeted revenue. This does not include Transit branch or other Departments contributions.

Description

This service package includes the following: 2015 - personnel costs of \$290 K and 3.0 FTEs to optimize the use of new electronic technology during transitioning from existing mechanical technology and \$210 K for conversion related costs that are non-capital in nature. The costs are expected to be offset by increased parking meter revenue of \$500k with no impact on tax levy. The preliminary estimates for 2016 and 2017 anticipate reduction in costs associated with maintenance of equipment as well as increase in parking meter revenues due to pricing flexibility and better utilization of the parking space. The reductions in expenditures and increased revenues starting in 2016 will be available for the repayment of capital investment of the new technology and for the entertainment district funding commitment related to parking.

Background

The City has undertaken a pilot program on some downtown locations. The results of the pilot confirm the City's direction for adopting pay-by-plate as the preferred method for parking management.

Options

Alternatives considered included replacement of existing equipment with similar technology (i.e. mechanical meters and cardkeys), a privatization model and the approved model - pay-by-plate technology.

Implications of Not Funding

This is a self funded service package and does not require contribution from the tax levy.

| Incremental | 2015 | | | | 2016 | | | | 2017 | | | |
|---------------|--------------|------------|----------|------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|
| (\$000) | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs | Exp | Rev | Net | FTEs |
| New Budget | 500 | 500 | - | 3.0 | (500) | 3,000 | (3,500) | (3.0) | (300) | 2,500 | (2,800) | (2.0) |
| Annualization | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | \$500 | 500 | - | 3.0 | (\$500) | 3,000 | (3,500) | (3.0) | (\$300) | 2,500 | (2,800) | (2.0) |

Branch — Transportation Operations

Branch Performance Measures

The following performance measures are intended to provide an example of some of the measures that the Branch is currently monitoring. Since services provided within each Branch are very diverse, the measures are not intended to represent the Branch overall.

Effectiveness measures whether the Branch is effective in achieving its desired outcomes.

Efficiency measures how well resources are being used to produce a service or product.

| Measure Type | Key Outcome (from Mandate) | Performance Measure | Target | Actual (year & result) |
|----------------------|--|--|------------------------------------|---|
| Effectiveness | (Engineering Services) Amount of recycled aggregate produced and diverted from the landfill annually | tonnes/year | 180,000 tonnes | 2013 – 183,282 2014 (YTD) - 131,269 tonnes |
| | (Roadways Maintenance) % of residential blading cycles completed within 5 business days | Amount of snow events meeting the 5 business day completion target | 100% | 2013 80% 2014 83% |
| | (Office of Traffic Safety) Reduce frequency and severity of traffic collisions on Edmonton roads | # of collisions in intersections/ 1000 population | 2013 15.8 | 2013 – 16.4 |
| | | | 2014 15.5 | 2014 (YTD) – 13.6 |
| | | | 2015 15.1 | |
| | | # of injuries from collisions/ 1000 population | 2013 6.6 | 2013 – 4.9 |
| | | | 2014 6.6 2015 6.6 | 2014 (YTD) – 3.8 |
| Efficiency | (Engineering Services) Total cost to produce recycled aggregate relative to privately sourced material | Ratio of total City cost per tonne relative to the average cost of privately produced 63mm recycled aggregate. | <1.0 | 2013 – 0.51 |
| | | | | 2014 (YTD) – 0.51 |
| | Total cost per kilometer of lane sanded | operating cost/ lane km of road sanded | 2014 \$2000/km | 2013 \$2510/km |
| | | | 2015 \$2400/km | 2014 (YTD) \$1030/km |