



Street Sweeping Information Package



CITY OF LETHBRIDGE

VERSION #1
January 2020



Historical Context

The City of Lethbridge Transportation department provides the street cleaning services for the city. The services generally runs from the spring to the fall but sweepers will be activated over the winter as weather dictates. Typically, sweepers run during the day and night depending on the program being delivered.

The general purpose of sweeping is to keep the roads safe, reduce environmental impacts of storm runoff. Road safety is enhanced by removing sand, dirt and litter which can be a slipping hazard for pedestrians, bicycles and motor vehicles. The environment benefits by removing any ice control materials left behind from the snow and ice control program. Vehicles leave behind various toxic chemicals and potentially spill fluids such as oil on the road surface.

Finally, keeping your streets clean help keep the city beautiful and maintain City pride. Residents in Lethbridge typically desire enhanced sweeping and generally appreciate the cleanliness of the road system.

KPMG Report Validation

The KPMG report correctly noted the operating budget for the Transportation Operations sweeping program to be 1.4M. The numbers shown in this document roughly detail the cost per service to provide a more detailed breakdown. These costs include all labor, equipment, disposal of the operation. The observation that Lethbridge can modify its street sweeping program is also accurate as there are other municipalities offering higher and lower levels of service to presumably a satisfactory level to their citizens.

Since the KPMG report was issued, the City of Lethbridge underwent a budget reduction exercise which resulted in an 18% reduction (\$285,000) in the Street Sweeping budget. The results of this budget cut are as follows:

- Reduction of 2 rental street sweepers to our sweeper fleet (7 Sweepers 2020 – 5 Sweepers 2021)
- Elimination of windshield wiper notification and door hangers for spring sweeping
- Significant reduction in summer day sweeping services
- Optimizing the number of passes/street for spring sweeping services
- Potential for not completing spring sweeping program, or completing at a lower quality standard, depending on winter traction control material utilization and sweeper fleet reliability

Despite the changes to the sweeping budget, administration has continued to investigate alternatives to the street sweeping programs as per the KPMG recommendations.

The report identified that sweeping on a rotating basis in the spring would be an option for exploring. The spring cleanup is the minimum service level delivered by municipalities. As mentioned in the historical context, it is important from a safety, environmental and public pride perspective to complete this service. Planning to not complete the program annually is not an option endorsed by administration and would not be well received by the community.

Current Services Offered

Note: These numbers and service descriptions are pre-budget reduction initiatives.

Spring Sweeping

Approximate Cost: \$739,000

Forecasted Cost (Budget Reductions): \$604,000

General Timeline: April - June

Basic Purpose: Clean the road surface of sand/dirt to enhance the safety of pedestrians, bicycles and vehicles and remove contaminants before they enter the river

Service description: Sweepers clean neighborhoods in a predetermined, rotating order, as weather, staff and machinery allow.

Approximate Area Swept: All roads. All boulevards and medians along priority 1 plow routes.

Summer Night Sweeping

Approximate Cost: \$249,000

General Timeline: May – September

Basic Purpose:

- Downtown sweeping – Sweep downtown to keep area vibrant and clean
- Industrial sweeping – Remove gravel, mud and debris from roads to improve safety
- Arterial sweeping – Remove gravel, mud and debris from roads to improve safety
- Police/Fire requests – Respond to accidents to assist with cleanup
- Public Service requests – Respond to ad-hoc cleanup requests best completed at night
- Internal requests – Assist departments with cleanup after major construction work

Service Description: Sweep non-residential areas outside peak traffic hours.

Summer Day Sweeping

Approximate Cost: \$250,000

Forecasted Cost (Budget Reductions): \$100,000

General Timeline: Year round but generally between June – October

Basic Purpose:

- Police/Fire requests – Respond to accidents to assist with cleanup
- Public Service requests – Respond to ad-hoc cleanup requests suitable for day cleanup (50 SR's in 2020)
- Internal requests – Assist departments with cleanup after major construction work

Service description: Targeted request resolution. Removal of accumulated debris from road surfaces to help with future programs. This includes items like cleaning downtown and the fall sweeping program.

Fall Sweeping

Approximate Cost: \$111,000

General Timeline: October - November

Basic Purpose: Clean the road surface of leaves which can plug storm drains and create slipping hazards.

Service description: Sweepers clean neighborhoods containing large trees. Sweeping starts at the discretion of administration, pending weather and based on the availability of staff/equipment. Sweepers may return multiple times in a season.

Winter Sweeping

Approximate Cost: \$20,000

General Timeline: October - April

Basic Purpose: Clean up debris in advance of spring program as staff are available.

Service Description: As the weather allows, sweepers proactively clean up winter SNIC materials and any other known areas in need of sweeping.

Efficiency Opportunities

Based on the KPMG report efficiency opportunities, Transportation Operations administration reviewed internal practices and informally consulted and researched other municipalities across Alberta, Saskatchewan and British Columbia. The information gathered was paired with common resident feedback received by operations to create the following efficiency opportunities. The efficiencies identified may not directly result in costs saving, but they would potentially better align street sweeping practices to the expectations of the tax payer.

Fall Sweeping

Lethbridge completes its fall sweeping program in a manner similar to most municipalities. There is limited data or information available on the efficiency of eliminating the fall sweeping service and how that impacts residents and the storm water system.

Operational experience would suggest completing the fall sweeping service is important for the following reasons:

- Pick up material dropped on the road between the spring and fall
- Leaves clog catchbasins and create localized ponding/ice buildup if not removed
- Leaves can pack down on the road and form a slick paste
- Leaves and debris left can enter the stormwater system
- Remaining leaves and debris after winter add to spring cleanup demand.
- Residents like us to pick up the leaves in the roadway as it reduces errant leaves blowing around

Despite this, Lethbridge could eliminate the fall sweeping program on a trial basis and study the results. The risks associated with discontinuing the service are minimal and would be actively monitored. This would free up

Transportation Operations resources to complete other activities such as pothole repairs and lane grading. Cost savings would be marginal as most of the staff who perform street sweeping are permanent employees.

The predominant fall sweeping feedback received by Operations is that residents would like more notification. The feedback varies by individual but typically involves wanting signage placed similar to the spring sweeping program or some form of digital communication. There are many reasons why someone might want this but generally it is so they have an opportunity to move their vehicle.

Options
#1 Maintain current practice
#2 Discontinue fall sweeping
#3 Implement digital communications
#4 Implement street signage
#5 Implement ticketing

Lane Sweeping

Lethbridge currently does not have a lane sweeping program. Customers can make a request to have a lane swept but it is not something we will regularly complete. There are a few lanes in the City that receive sanding material in the winter (garbage trucks) that will be swept at the discretion of administration.

Some municipalities had a regular lane sweeping program but they are in the minority. Lane sweeping is not a common practice. This is not a commonly requested service by residents but operational experience would suggest that many lanes around town are poorly maintained from a street sweeping perspective.

The operational challenges faced with sweeping lanes are:

- Overhanging trees, private and public, which damage the sweeper
- Risks of hitting overhead powerlines
- Lanes are cluttered with large debris, garbage cans and cars
- Lane transitions and potholes hard on the sweepers (expensive machinery)
- Large debris can break sweeper mechanisms (large chunks of metal, other hard materials)

Adding lane sweeping to our service levels would be a service enhancement that would reduce available resources for other transportation programs and would add to the sweeping program budget.

Options
#1 Maintain current practice
#2 Sweep lanes annually or at another determine interval

Downtown, Industrial and Arterial Sweeping

Lethbridge is in the typical range of service for downtown, industrial and arterial sweeping compared to other municipalities contacted. It would be impractical to optimize when a specific road should be swept which is why most municipalities opt to sweep downtown, arterial and industrial areas. These areas receive the most vehicular traffic and are therefore the most likely to have deposited debris and contaminants for cleanup.

General best practice is to sweep as much as possible but weekly is a common service target. KPMG identified that we could increase the sweeping frequency in select areas. Lethbridge and many other cities of a similar size have one to two sweepers on the road a day. Lethbridge completes most of this work during the night sweeping program when traffic volumes are light and sweepers can move safely on the road. These sweepers clean up acute concerns and problems while performing a gutter sweep on downtown, arterial and collector roads. These sweepers constantly fill their hoppers and remove many loads of material/shift. More sweepers on the road would allow us to achieve even higher utilization of our existing sweepers and clean even more of the City/more frequently.

Residents do occasionally call in and indicate that we sweep certain roads too much. The risks of reducing the night sweeping program are hard to quantify but would see a decrease in safety, the environment and city beautification.

Options
#1 Maintain current practice
#2 Reduce the frequency which we sweep road surfaces
#3 Increase the frequency which we sweep road surfaces