



# City of Richmond

## Report to Committee

**To:** Parks, Recreation and Cultural Services  
Committee

**Date:** January 28, 2020

**From:** Todd Gross  
Director, Parks Services

**File:** 11-7200-01/2019-Vol  
01

**Re:** **Standard of Vegetation Maintenance for Parks and Boulevards**

### Staff Recommendation

That the staff report titled “Standard of Vegetation Maintenance for Parks and Boulevards”, dated January 28, 2020, from the Director, Parks Services, be received for information.

Todd Gross  
Director, Parks Services  
(604-247-4942)

Att. 3

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Fleet	<input checked="" type="checkbox"/>	
Finance	<input checked="" type="checkbox"/>	
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

At the General Purposes Committee meeting held on June 17, 2019, staff received the following referral:

- 1) *That staff analyze and explain the standard of maintenance for parks and roadways; and*
- 2) *That staff review the costs to increase the frequency of roadway and park maintenance; and report back.*

The purpose of this report is to respond to this referral.

This report supports Council's Strategic Plan 2018-2022 Strategy #1 A Safe and Resilient City:

*Enhance and protect the safety and well-being of Richmond.*

*1.1 Enhance safety services and strategies to meet community needs.*

*1.2 Future-proof and maintain city infrastructure to keep the community safe.*

This report supports Council's Strategic Plan 2018-2022 Strategy #2 A Sustainable and Environmentally Conscious City:

*Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.*

*2.2 Policies and practices support Richmond's sustainability goals.*

This report supports Council's Strategic Plan 2018-2022 Strategy #4 An Active and Thriving Richmond:

*An active and thriving community characterized by diverse social and wellness programs, services and spaces that foster health and well-being for all.*

*4.2 Ensure infrastructure meets changing community needs, current trends and best practices.*

*4.3 Encourage wellness and connection to nature through a network of open spaces.*

### Analysis

#### Background

Parks Services provides a wide range of grass mowing and vegetation maintenance practices including mowing of parks, boulevards, ditches, dikes, trails, natural areas, school properties,

sports fields and civic properties throughout the community. Work is performed primarily during the growing season months of March to October.

Over the past decade, the City has experienced increased community growth and effects of climate change. Parks maintenance inventory has increased and park design has changed incorporating increased diversity, a greater degree of use, programming and natural area management.

### Standard of Maintenance

Grass mowing is performed in a wide array of locations within varied standards. Parks, school properties, sports fields and civic properties are cut once a week (Attachment 1), while trim mowing of these locations is performed once every three weeks (Attachment 2). Long grass areas including dikes, trails, ditches and boulevards are cut two to three times a year (Attachment 3).

In conjunction with a 2019 departmental review, inconsistencies in mowing standards were identified in maintenance frequencies, staff schedules, equipment availability and type, definition and clarification of standards, routes, and expectations.

In an effort to improve the standard of maintenance, staff reviewed all aspects of grass mowing to identify opportunities for efficiency gains and modernization within the following program areas described below:

#### *Staff Scheduling*

Schedules for Parks Operations staff within the grass mowing section have been adjusted to reflect the current demands of work areas, reducing gaps in service and reflecting the growing season months of March to October.

#### *Training*

Staff working in these areas is comprised of a combination of full-time and seasonal equipment operators and labourers with varying backgrounds and experience. Increased engagement and training with equipment operators during a winter season review has led to a better understanding of standards, schedules, routes and requirements. Enhanced training has been implemented for the start of the 2020 season.

#### *Equipment*

In an effort to increase customer service, Parks and Fleet staff have worked together to adjust equipment replacement priorities. In doing so, two key pieces of equipment have been identified for replacement as part of the 2020 Capital Replacement Program. A new replacement short arm flail mower for long grass areas and a new replacement large area rotary mower for parks and sports fields will increase productivity, enhance customer service, and reduce downtime. Additional key pieces of equipment have been identified and are scheduled for replacement in the following years.

Looking to the future and considering the changing environmental conditions, staff will be working towards modernization and enhancement of the fleet with a goal of reducing cut time, maintenance and operating costs, and greenhouse gas emissions. While a large portion of these adjustments will

be made through the natural lifecycle replacement of our fleet, some additional funding requirements may need to be made through the annual capital budget submission process.

*Compliance*

To comply with Federal regulation, staff implemented a new formal inspection process prior to mowing long grass in sensitive areas to ensure operations do not impact or disturb migratory birds. Council approved \$178,776 during the 2020 operating budget process to support this program as well as other urban wildlife management programs.

Increased Frequency of Maintenance

Within the grass mowing and trimming standards, there is a two-week difference in the frequency of service within parks, school properties, sports fields and civic properties. Open areas are cut once a week while trim mowing is performed within the same location once every three weeks. At times, this frequency gap results in complaints from the public, school district and user groups.

In order to increase the frequency of service within these maintenance tasks, staff have identified the following two scenarios:

Scenario 1 – Once a Week Trim Mowing

Increase trim mowing from once every three weeks to once every week. These adjustments provide a consistent level of service with open area mowing. This frequency of service would require an operating budget increase of \$644,000 and a one-time capital equipment budget increase of \$580,000 (Table 1).

Table 1 – Once a Week Trim Mowing Costs

<b>Increased Level of Service</b>	<b>Details</b>	<b>Operating Costs</b>	<b>Capital Costs</b>
Staffing	12 seasonal staff (March-October)	\$474,000.00	\$0.00
Equipment Purchase	6 Pick-up trucks, trailers, mowers and hand power tools	\$0.00	\$580,000.00
Equipment Maintenance (OBI)	Hourly operating costs, maintenance and depreciation	\$170,000.00	\$0.00
<b>Total:</b>		<b>\$644,000.00</b>	<b>\$580,000.00</b>

Scenario 2 – Once Every Two Weeks Trim Mowing

Increase trim mowing from once every three weeks to once every two weeks. This frequency of service would require an operating budget increase of \$322,000 and a one-time capital equipment budget increase of \$290,000 (Table 2).

Table 2 – Once Every Two Weeks Trim Mowing Costs

Increased Level of Service	Details	Operating Costs	Capital Costs
Staffing	6 seasonal staff (March-October)	\$237,000.00	\$0.00
Equipment Purchase	3 Pick-up trucks, trailers, mowers and hand power tools	\$0.00	\$290,000.00
Equipment Maintenance (OBI)	Hourly operating costs, maintenance and depreciation	\$85,000.00	\$0.00
<b>Total:</b>		<b>\$322,000.00</b>	<b>\$290,000.00</b>

Existing service levels will be monitored in 2020 and these scenarios could be considered in future budget years.

**Financial Impact**


None

**Conclusion**


Upon review of the wide range of grass mowing and vegetation maintenance practices performed by Parks Services, staff have identified a number of opportunities to enhance the standard of maintenance and the frequency of maintenance while increasing customer service.

Todd Gross, DBS, MAL  
 Director, Parks Services  
 (604-247-4942)


- Att. 1: Work Activity 3332 – Mowing - Gang
- 2: Work Activity 3331 – Mowing - Trim
- 3: Work Activity 3330 – Mowing - Flail/Brush Cutting

	<p><b><i>Work Activity 3332</i></b></p> <p><b><i>Mowing - Gang</i></b></p>
	Section: Turf Management
	Revised: January 28, 2020

<b>Essential Tasks:</b>
Gang mowing is performed from March to November (weather dependant) at all City wide, Community, School and Neighbourhood Parks.
Gang mowers must cut the bulk of the turf areas leaving only what is obstructed by obstacles for the trim mowers to finish.
<b>Equipment:</b>
Equipment for gang mowing includes tractors, reel mower trailers (width 14' - 4.2M) and the Toro rotary mower (width 16'4")
Equipment must be maintained according to operator's manual including greasing at least once a week. Equipment to be scheduled for repair with Fleet on CD days or evening shift whenever possible.
<b>Frequency:</b>
One time per week
<b>Schedule:</b>
March to November

	<h2><i>Work Activity 3331</i></h2> <h3><i>Mowing - Trim</i></h3>
	Section: Turf Management
	Revised : January 28, 2020

<b>Essential Tasks:</b>
Trim mowing is performed from March to November (weather dependant) at all City-wide Parks, Community Parks, School properties, Neighbourhood Parks, Community Halls, Community Centers, Walkways, Cul-de-sac's, Islands, roadway medians and any other City owned properties.
Includes the use of ride on mowers, trim line mowers (weed eater) and push mowers.
Grass clippings are to be blown off all walk way entrance/ hard surfaces at all Civic buildings.
Lawn clippings are collected at specific locations when using push mowers. Locations are medians at Minoru, Gilbert, Westminster Hwy, Ironwood and No 2 Rd. Also collected at No 2 Rd. Fire Hall
Trim mowing activity includes the mowing of all grass/vegetation the gang mowers do not cut.
In summer when grass growth slows down, trim crews control vegetation growth in sidewalk/walkways/hard surface areas/gravel areas at all trim mowing sites.
Litter must be picked up prior to mowing.
Any unsafe sighting within assigned areas must be reported immediately to the Supervisor.
<b>Equipment:</b>
Ride on mowers, trim line mowers (weed eater) and push mowers.
Equipment must be maintained as per operators manual. Equipment to be scheduled for repair with Fleet on CD days or evening shift whenever possible.
<b>Frequency:</b>
Every 3 weeks
<b>Schedule:</b>
March to November

	<h2><i>Work Activity 3330</i></h2> <h3><i>Mowing – Flail/Brush Cutting</i></h3>
	Section: Turf Management
	Revised: January 28, 2020

<b>Essential Tasks:</b>
Flail mowing and Brush cutting is performed from March to November (weather dependant) at all natural areas, dykes, linear parks, trails and along main roads/ditches (Road way shoulder only – 2 passes wide with the flail mower) is cut 2 times per year to a mowing height of 4”.
Flail mowing – Main arterial road edges adjacent to driveways – 3 passes wide for 15 M on either side of driveway.
Flail mowing – cut all corners wide ( minimum 2 passes wide)
Flail mowing - ditches within Parks or next to Park trails – mow pathway side of ditch down to slope of water edge leaving ½ M of vegetation. Cut opposite side of ditches when possible if the flail can reach
Flail mowing – along trails – 2 passes wide on either side of trail when possible
Ditch mowing should not take place between mid-May to late-July to protect Northern Pacific Treefrogs ( <i>Pseudacris regilla</i> ) found living within the Burkeville ditch areas. Mowing that must take place during this timeframe should only cut to the level of the road to ensure site lines and not extend to the waters or wetted edge of the bottom of the ditch.
<b>Equipment:</b>
Equipment for flail mowing and brush cutting includes tractors, flail mower attachments, brush cutter attachments and brush saws.
Equipment must be maintained according to operator’s manual. Equipment to be scheduled for repair with Fleet on CD days or evening shift whenever possible.
<b>Frequency:</b>
2-3 times per year
<b>Schedule:</b>
March to November