

Report to: GENERAL COMMITTEE
Finance & Administrative

Date of Meeting: June 19, 2006

SUBJECT: Parks Standard Review, Phase 2
PREPARED BY: Paul Ingham, General Manager, Operations ext. 4852

RECOMMENDATION:

THAT the staff report dated June 19, 2006, entitled 'Parks Standard Review, Phase 2 Report', and the presentation and attached report dated June 12, 2006, from Marshall Macklin Monaghan Ltd. entitled 'Turf Care and Maintenance Practices, Phase 2 Report' be received;

AND THAT staff arrange for a workshop with members of Council to review the various options and costs related to the Parks Standards Report.

AND THAT, following the workshop with members of Council, staff report back to Committee and Council with a detailed implementation strategy including all financial implications.

PURPOSE:

This report has been prepared to update Council on the status of Phase 2 of the Operations Department's Parks Standards Review, as approved by Council in February, 2006 and as presented by Marshall Macklin Monaghan Ltd. in their June 12, 2006 report, 'Turf Care and Maintenance Practice, Phase 2'.

BACKGROUND:

The Town of Markham Phase 1 report was presented to Town Council on February 14, 2006. The Turf Grass Maintenance Evaluation report was the result of an investigative study conducted in the fall of 2005 by Marshall Macklin Monaghan Ltd. The purpose of the report was to evaluate the Turf Maintenance of a selected inventory of turf conditions in Markham's parkettes, neighbourhood/community parks, sports fields, boulevards and medians. The report compared the maintenance practices of three York Region municipalities including the Town of Markham, Town of Richmond Hill and City of Vaughan. Also included in the study was the random review of parks in the City of Waterloo and comparing the maintenance practices to that of Markham.

The cultural practices, including aerating, overseeding, fertilizing and top dressing, are utilized by each of the municipalities to varying degrees. Essentially all of the sports fields in the three municipalities are receiving similar forms of cultural turf maintenance.

In addition to maintenance practices, there are a number of philosophical differences regarding how and where parks are built and field use policies that effect turf quality. Waterloo parks are not built next to schools. This means that sport fields are used less during the day when students often make use of park fields next to schools before and after school, at recess and lunch time and for school programs. Although they receive maintenance practices similar to Markham, sports fields in Waterloo have less use, less

stress and are generally in better condition than the sport fields in other municipalities reviewed in this assessment

Use of fields when conditions are inappropriate was also an issue raised in Phase 1 of this study. This would include wet weather use by permitted users, general use by unpermitted groups and use before and after the end of season.

These inappropriate uses often damage fields extensively, negating the cultural practices applied to the field at an earlier date.

OPTIONS/ DISCUSSION:

Marshall Macklin Monaghan Limited was hired to provide recommendations for future turf maintenance practices on public property with a goal to further reduce or eliminate pesticide use, while maintaining the standards of safety required and quality of turf to which the Stakeholders are accustomed.

A review of current standards and cultural practices was undertaken by a Panel of Experts which included organic turf specialist Cheryl Shour, turf consultant David Smith, cultural practice expert Bob Kennedy and municipal sports field specialist Tom Clancy.

After reviewing the possible options, it has been determined that there is a complex hierarchy of possible scenarios for maintenance amongst the six different categories of properties, 3 being sports fields, 1 being parks/parkettes/ball diamond outfields and the other 2 being boulevards and hard surface medians. Rehabilitation costs were also reviewed and vary greatly depending on the option chosen.

Turf locations examined were classified by maintenance requirements into Sports Fields (A, B, C), Parks, Boulevards and Medians. "Sports Fields" for the purpose of this document refer only to soccer, football and rugby fields. "A" Sports Fields are major fields that are lit and irrigated. "B" Sports Fields are major fields that may be irrigated, but not lit. "C" Sports Fields are located in neighbourhood parks and are usually smaller and used for house league play. Baseball outfields are grouped with neighbourhood parks and parkettes from a maintenance standpoint, and turf boulevards and hard surface road islands medians are listed separately. Options for turf care programs were recommended for each type of classified turf area.

Sports Fields must be kept relatively weed free for safety reasons. Broadleaf weeds become very slippery, especially when wet. Users can slip and fall or turn ankles or injure knees when playing on turf that is heavily infested with weeds. Based on the concern for user safety, the panel recommended that Sport Fields be maintained under a basic cultural practice program when under 20% weed population. Between 20% and 50% infestation, increased cultural practices would be employed to increase turf health and reduce weed populations over an extended period of time. The success of cultural practices relies heavily on good growing conditions, and the weather does not always provide these conditions.

Anything above 50% weed infestation (this threshold was recommended by the panel of experts as the level where cultural practices alone would not reduce weed growth in a timely manner to ensure a safe playing surface) would require rehabilitation using one of three options:

Seed: The field would need to be stripped completely, re-graded and seeded. The field would be removed from use for a period of up to 2 playing seasons. This would provide a quality field below recommended weed thresholds.

Sod: The field would need to be stripped, regraded and sodded. The field would be removed from use for a period of 2 months. This would provide a quality field below recommended weed thresholds.

Spray Herbicide: Herbicide would be applied to eliminate the weeds and then the field would be fertilized, aerated, overseeded and topdressed. The field would be removed from use for a period of 2 weeks. This would provide a quality field below recommended weed thresholds.

All other park turf areas, including ball diamond outfields, neighbourhood parks and parkettes would receive a basic level of cultural practices similar to the Ward 2 Cultural Practices Pilot Program, without additional mowing.

Boulevards have received increased mowing over the last 2 years and this has greatly reduced complaints. It was also felt that the weeds often provide green cover where grass will not grow due to salt damage and compaction and that this practice is generally acceptable providing the boulevards are mown regularly.

Hard Surface Medians are currently weeded manually by contractor 2 times a year. It was felt that this was inadequate, as weeds would grow in the cracks between concrete curbs and asphalt surfaces to a height of 30cm between weedings. The panel recommended the weeds be removed 4 times per year to improve aesthetics and reduce asphalt/concrete damage from root growth.

FINANCIAL CONSIDERATIONS:

Based on the Consultant's recommendations, the Operations Department has prepared the following four year phased approach to implement full cultural practices for all Town owned sports fields and parks, for Council's consideration.

| Annual Program Enhancement | Increased Capital Cost Irrigation | Increased Capital Cost Equipment | Increased Annual Operating Cost |
|---|-----------------------------------|----------------------------------|---------------------------------|
| 2007 | | | |
| Implement level 1 cultural practices on all 'A' and 'B' sports fields. Install new irrigation system on 7 sport fields: | \$175,000 | \$45,000 | \$85,000 |
| 2008 | | | |
| Implement level 1 cultural practices on all parks as well as 'C' sports fields as indicated in Appendix 'B'. Increase manual weed removal on median islands from 2 times annually to 3. Install new irrigation system on 7 sport fields: | \$175,000 | \$105,000 | \$190,000 |
| 2009 | | | |
| Implement level 2 cultural practices on all parks as well as all 'A', 'B' and 'C' sports fields as indicated in Appendix 'B'. Increase manual weed removal on median islands from 3 times annually to 4. Install new irrigation system on 7 sport fields: | \$175,000 | \$150,000 | \$230,000 |
| 2010 | | | |
| Install new irrigation system on 7 sport fields: | \$175,000 | N/A | \$6,000 |
| | | | |
| 4 year total cost (estimate) | \$700,000 | 300,000 | 511,000 |
| (all above noted costs are based on 2006 estimated prices) | | | |

In addition to the above noted maintenance program, the report prepared by Marshall, Macklin, Monaghan has identified the following strategies for sports field rehabilitation, including estimated costs.

Option 1 – Re-sod Field

The field would need to be stripped, re-graded and sodded. Field would be removed from use for up to 2 months. Estimated cost approximately \$100,000 per ha.

Option 2 – Re-seed Field

The field would need to be stripped, re-graded and seeded. Field would be removed from use for up to 1½ playing seasons. Estimated cost approximately \$60,000 per ha.

Option 3 – Spray Herbicide

Select herbicide would be applied to eliminate weeds then field would be aerated, over-seeded, top-dressed and fertilized. Field would be removed from use for a period of 2 weeks. Estimated cost approximately \$2,500 per ha.

FINANCIAL TEMPLATE:


No attachments.

ENVIRONMENTAL CONSIDERATIONS:

The Phase 2 Report involves environmental considerations through utilizing assessment information from the Phase 1 Report on Turf Care and Maintenance Practices and results from the Expert Panel Discussions to provide recommendations for turf care and maintenance practices that will reduce or eliminate the use of pesticides on Town Property.

BUSINESS UNITS CONSULTED AND AFFECTED:

Financial Services

RECOMMENDED**BY:**

Peter Loukes
Director, Operations

Jim Sales
Commissioner, Community
and Fire Services**ATTACHMENTS:**

ATTACHMENT A - Turf Care and Maintenance Practices – Phase 2 Report
by Marshall Macklin Monaghan Ltd.

