



City of Richmond

Report to Committee

To: Finance Committee **Date:** February 19, 2018
From: Serena Lusk **File:** 06-2345-20-GCIT1/Vol
 General Manager, Community Services 01
Re: Garden City Lands Project Tipping Fees Revenues

Staff Recommendation

1. That the General Manager, Community Services be authorized to enter into deposit agreements with private contractors for placement of soil on the Garden City Lands required for the development of the Garden City Lands, as detailed in the staff report titled "Garden City Lands Project Tipping Fees Revenues," dated February 19, 2018; and
2. That all net revenues generated through tipping fees at or on the Garden City Lands be reinvested into the Garden City Lands to offset any future project related costs, as detailed in the staff report titled "Garden City Lands Project Tipping Fees Revenues," dated February 19, 2018, from the General Manager, Community Services.

Serena Lusk
 General Manager, Community Services
 (604-233-3344)

Att. 2

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance Department	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
Sustainability	<input checked="" type="checkbox"/>	
Community Bylaws	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: CS	APPROVED BY CAO

Staff Report

Origin

At the July 18, 2016, General Purposes Committee meeting, Council received the staff report titled “Garden City Lands Park Development Plan,” providing Council an update of future construction and development activities on the Garden City Lands (“Lands”). Since then, the first phases of the Development Plan have been implemented.

To fully realize the Park Development Plan and proceed with the proposed agricultural activities, soil of the appropriate environmental quality and physical characteristics are required to be imported onto the site. The Agricultural Land Commission (ALC) has approved the placement of fill on the site, and City soil deposit permits are in place. Significant quantities of soil were sourced from providers in the construction and development industry in Richmond. This activity represents a significant revenue stream for the City.

In 2017, approximately 21,100 cubic meters (m³) of soil was imported to create the 2.6 hectare first phase of the Kwantlen Polytechnic University (KPU) Farm and approximately 9,900 m³ was also imported to amend the existing soil on The Rise. Additionally, approximately 3,800 m³ of peat was imported to amend existing soils (Attachment 1).

In 2018, approximately 26,000m³ of soil will be imported to complete the KPU Farm area. Beyond 2018, subject to ALC approval and the sourcing of appropriate material, additional soil will be required to facilitate future agricultural activities on the site. It is expected that revenue will be generated by these future activities.

This report supports Council’s 2014-2018 Term Goal #3 A Well-Planned Community:

Adhere to effective planning and growth management practices to maintain and enhance the livability, sustainability and desirability of our City and its neighbourhoods, and to ensure the results match the intentions of our policies and bylaws.

3.1. *Growth and development that reflects the OCP, and related policies and bylaws.*

This report supports Council’s 2014-2018 Term Goal #7 Strong Financial Stewardship:

Maintain the City’s strong financial position through effective budget processes, the efficient and effective use of financial resources, and the prudent leveraging of economic and financial opportunities to increase current and long-term financial sustainability.

7.2. *Well-informed and sustainable financial decision making.*

7.4. *Strategic financial opportunities are optimized.*

Analysis

Soil Importation

Rationale and Regulatory Framework

The Park Development Plan envisions the western half of the Lands for intensive agricultural production. The following two principle reasons for placing fill on the Lands are:

1. To mitigate the effects of the low level contamination currently found in the existing soils. As per the project's Qualified Environmental Professional (QEP), (Hemmera), recommendations, placing additional soil would permit agricultural production on the site. The placement of 30 cm to 60 cm of uncontaminated soil will provide the recommended rooting volume for anticipated field crops to be grown.
2. There is currently a layer of predominantly peat-based soils on the ground level on the Lands. Current best management practices in sustainable farming indicate farming peat soils is not recommended. KPU's agrologists have advised that actively farming the peat layer will accelerate the decomposition of the peat releasing the carbon currently sequestered by the peat. With the placement of soil over existing peat, the peat's decomposition process will be greatly diminished. This capping soil material will prevent the release of the peat's carbon.

Placing soil material over the existing soils (principally peat-based material) on the Lands proceeded for the aforementioned reasons. Imported material placed on the Lands in 2017 was either:

1. Soil to establish the KPU Farm (as per ALC Approval #56199) or amend the soil in place on The Rise; or
2. Peat as a soil amendment (an ALC permitted agriculture-related activity; no approval required).

Soil Management

Soil conforming to the specifications and protocols documented in the Source Soil Management memo, (Attachment 2), will be placed on the Lands. The owner or contractor of the source soil will provide documentation including a Phase 1 Environmental Assessment that will be reviewed by McTavish Consulting to evaluate soil suitability. Prior to the soil being imported, McTavish Consulting will also conduct further analytical testing of imported soils to ensure that the ALC Guidelines for soil and the BC Contaminated Sites Regulation (BC CSR) – Schedule 4 standards for Agricultural Lands are met. Soil source site(s) will be inspected to confirm the absence of invasive species prior to importation of soil onto the Lands.

The soil imported to the Lands in 2017 was sourced from Richmond locations only. Soil placed at the KPU Farm and The Rise was sourced from Sea Island (YVR- Vancouver Airport Authority projects) and peat imported for soil amendment was provided by a local contractor

working on several private residential properties located in the ALR. A process substantially similar to that described in the paragraph above was undertaken before any soil was placed on the Lands. All activities were overseen by a QEP (McTavish Consulting).

Soil Revenue

Locations for the placement of soil (or ‘fill sites’) are in demand within the region by the construction and development industry. A typical fill site operator charges a tipping fee (charged on a per dump truck or cubic meter basis) to deposit soil at a site. The Lands is a desirable soil deposit site. Suppliers needed to meet the City’s specific technical requirements, conditions of the ALC approval to place soil, and the proposed rates. Additionally, staff followed these best management practices:

- The City charged a tipping fee, in order to ensure compliance with the Community Charter’s provisions on not providing assistance to a business.
- To remain neutral, the City charged a tipping fee. Staff did not want to put the City in a position whereby the Lands becomes a direct competitor to local fill site operators.
- As per industry standard practice, the City is charging tipping fees at current market rates. City staff consult with industry representatives to ensure the fees reflect current market rates that are within an acceptable range.

Rates are reviewed every six months. In 2017, the City charged on a per load basis as follows:

- Soil:
 - Tandem Dump Truck (approx. vol.: 7 cubic meter): \$100
 - Tri- Tandem Dump Truck (approx. vol.: 12 cubic meters) : \$125
- Peat:
 - Tandem Dump Truck: \$85

Staff will continue to monitor industry rates and ensure contracts include a provision which allows an annual adjustment if required.

Next Steps

To fully realize the site’s entire agricultural capacity and address the recommendations of the QEP, significant volumes of soil will need to be imported onto the Lands (Attachment 1). Those remaining areas are:

1. The KPU Farm: 5.4 hectares; and
2. The “South Farm”: 9.5 hectares.

As a soil deposit site, the Lands project generated in excess of \$450,000 in revenues from the importation of soil in 2017. Anticipated revenues from the proposed 2018 fill activities on the KPU Farm site could be in the range of \$350,000 to \$450,000. The potential gross revenues from the proposed activity on the southern half of the Lands could be in the range of \$900,000 to \$1,200,000. Soil placement for the southern portion of the Lands would only be able to proceed once ALC approval is secured.

Future revenue could be utilized to offset future project-related costs not eligible under the Development Cost Charge (DCC) program. With Council's direction, staff request that all net revenue generated through activities at the Lands be reinvested back into the Garden City Lands project to fund non-DCC eligible works including parking lots and farm-related structures such as a barn.

Financial Impact

Net revenue generated at the Lands will be used to support future Lands capital projects which will be included in the annual Budget process.

Conclusion

With the importation of soil, the Lands will generate significant alternative revenues for the City. With Council's direction, staff will contract suppliers to facilitate the supply of soil to establish areas for future agriculture production. Whenever possible, staff will endeavor source Richmond soil for use on the Lands.



Alexander Kurnicki
Research Planner 2
(604-276-4099)

Att. 1: Garden City Lands Soil Fill Areas Plan (5753254)

Att. 2: McTavish Source Soil Management Memo, dated December 19, 2017 (5754728)

Garden City Lands Soil Fill Areas Plan



LEGEND

THE AGRICULTURAL LANDS

- 1 Multi-Functional Building and Parking
- 2 Rainwater Storage for Agricultural Irrigation
- 3 Farm Drainage Ditch
- 4 Agricultural Fields
- 5 Orchard
- 6 Demonstration Orchard
- 7 Community Gardens
- 8 Hedgerows & Beetle Banks
- 9 Sliding High Tunnels
- 10 Farm Fields
- 11 Soil Amendment Trials

THE BOG

- 12 Bog Conservation Area
- 13 The Fen
- 14 Boardwalk with Rest Points

THE RISE

- 15 Meadow / Informal Recreation
- 16 Children's Play

THE NODES

- 17 Garden City Lands Main Entrance
- 18 Entry Node
- 19 Entry Allée
- 20 Viewing Platform
- 21 Crosswalk
- 22 Parking Lot with Accessible Stalls
- 23 Parallel Parking with Accessible Stalls

THE DYKE

- 24 Multi-use Path with Farm Access

THE PERIMETER TRAILS

- 25 Native Forest Plantings
- 26 Street Trees
- 27 Perimeter Trails - Separated Paths
- 28 Rain Garden

Scale 1:1000

Garden City Lands: Park Development Plan



#300 – 15300 Croydon Drive
Surrey BC
V3S 0Z5

Date: December 19, 2017

Attn: Alex Kurnicki

From: Bruce McTavish

Re: Source Soil Management

This memo outlines the steps to take place when soil is sourced for transport and deposit at the Garden City project.

The soil for the Garden City must adhere to the ALC guidelines for soil and the BC Contaminated Site Regulations (BCCSR) – Schedule 4 for Agricultural Lands.

The owner or contractor of the source soil will need to provide a Phase 1 Environmental Assessment.

When a source of soil has been identified, the following steps will be taken:

- 1) On behalf of the City of Richmond, an Agrologist with expertise in soil science and soil handling will review available documentation including a Phase I Site Investigation (environmental assessment) report for the site from which the soil originates.
- 2) The Agrologist must visit the source site and evaluate the soil for suitability as fill on the Garden City lands, and report on whether and how conditions of the ALC for soil will be met. This evaluation starts with on site visual observations of the site and the soil. Based on the observations and review the Agrologist can:
 - a. Reject the soil
 - b. Approve the soil and then
 - c. Proceed with a soil investigation program, including sampling and sample analysis.
 - d. Ensure that soil meets the KPU specification attached to ALC decision 56119
- 3) The Agrologist must prepare a protocol for the soil handling before transportation of the soil to the Garden City Lands. The protocol will be site specific and include:
 - a. Supervision of soil handling
 - b. Separation and set aside of topsoil
 - c. Separate transport of topsoil and other soil to the Garden City property
 - d. Placement of soil and topsoil to mimic the original profile, and
 - e. Monitoring of stoniness
 - f. Monitoring of non-soil inclusions such as asphalt and concrete and procedures for removal of such items.

The Agrologist may recommend that screening of the soil to remove inclusions takes place before transport of the soil to the Garden City property.



Bruce McTavish MSc MBA PAg RPBio
Senior Agrologist

