

NO: L006

COUNCIL DATE: **NOVEMBER 25, 2013**

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## REGULAR COUNCIL – LAND USE

TO: **Mayor & Council**

DATE: **November 19, 2013**

FROM: **General Manager, Engineering**

FILE: **4520-80(18969-04000)**

SUBJECT: **Application to Deposit Soil on the Property at 18969 – 40 Avenue**

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## RECOMMENDATION

The Engineering Department recommends that Council:

1. Receive this report as information; and
2. Set a date for a Public Input Session related to an application that proposes the deposition of 118,000 cubic metres of soil on the lot at 18969 – 40 Avenue.

## INTENT

The purpose of this report is to provide information about an application that has been received by the City to permit the deposition of soil on the lot at 18969 – 40<sup>th</sup> Avenue and to seek approval to advance the application to a Public Input Session, which is the next step in the approval process as stipulated in Council Policy.

## BACKGROUND

Soil deposition on lands within the City is regulated by the “Surrey Soil Conservation and Protection By-law, 2007, No. 16389” (the “Soil By-law”).

An application has been received by the City from Peter Schouten, Laura Schouten, John Pyper and Cheryl Pyper (the owners) c/o Aplin & Martin Consultants Ltd. of the property at 18969 – 40<sup>th</sup> Avenue (the “Property”), which is illustrated on Appendix I, to deposit 118,000 cubic metres of soil on the Property. The proposed filling is intended to improve the lands for agricultural purposes. The Property is not the subject of a development application.

At its Regular meeting on October 17, 2011 Council adopted the recommendations of Corporate Report No. R193; 2011, bringing into effect the City of Surrey “Soil Permit Applications Policy” (the “Soil Policy”). The Soil Policy documents the application requirements for soil extraction and/or soil deposition permits and how such applications will be processed.

Since in this circumstance the volume of soil to be deposited is greater than 35,000 cubic metres, the Soil Policy stipulates that the application is to be forwarded to Council for consideration and that it is to be subject to a Public Input Session. The Soil Policy defines how the owners of the

neighbouring properties and other interested members of the public will be given notice of the Public Input Session.

## **DISCUSSION**

The Property is approximately 5 hectares (12.5 acres) in area and has a downward slope in the northerly direction. The location and general characteristics of the Property are illustrated on the aerial photograph that is attached as Appendix I to this report. The Property is currently zoned Agricultural (A-1 Zone) and is within the Agricultural Land Reserve. The surrounding property is zoned Agricultural (A-1 Zone) except for the Campbell Heights North Business Park to the south which is zoned CD (Comprehensive Development Zone).

The Property is not actively being farmed and is overgrown with young alder trees. To facilitate farming on the lot, the owners will need to remove the vegetation and augment the soils. The existing soil profile and site conditions are not suitable for most types of agricultural production. The owners are seeking to farm wolf berry (gojji berry) or blueberry. The Property is not within a floodplain area but has groundwater issues from previous gravel extraction activities in the area. The footprint of the proposed soil deposition area is approximately 3 hectares (7.4 acres) in area and is outlined in yellow on the air photo attached as Appendix I to this report.

Staff acknowledges the need to import some fill to the Property to enable viable agriculture to occur but has concerns with the depth of fill as proposed in this application. The soil deposition application for this site proposes to fill the site to a maximum depth of 5m near the northerly portion of the site. This is more than is typically needed to re-establish agricultural potential on a lot and the applicant has advised that this depth is being proposed in an effort to not only improve drainage but also to increase sunlight exposure.

If this soil deposition application is approved as proposed, views from adjacent properties to the west, east and north will include a 5m fill slope. The proposed fill could also cause shadowing to other properties in the area and affect localized groundwater conditions.

### **Review by the Agricultural and Food Security Advisory Committee (AFSAC)**

At its meeting of September 12, 2013, the AFSAC reviewed the subject application and did not reach a consensus due to the depth of fill that is proposed (a copy of the minutes from this meeting is attached as Appendix II). The AFSAC outlined the following concerns with the proposal:

- A drainage installation study has not been carried out to address the necessity of fill;
- Acidic soil conditions could be resolved with the application of lime to the soil;
- The deposition of fill on the Property could result in a negative impact to the property to the west;
- The magnitude of fill placement appears to be too aggressive; and
- Hydrology related to the neighbouring lake and drainage through the subject site is not clear.

The Committee recognized that the subject site is a difficult (wet) parcel and that there could be a benefit in agricultural production realized from the addition of some soil (if done properly). AFSAC also noted that properties near the subject Property are actively being farmed without having previously been filled.

The AFSAC recommended that the application be forwarded to Council and the Agricultural Land Commission (ALC) for their comments with ALC determining the depth of fill that would be appropriate to bring the site into production.

In accordance with the Soil Policy, the applicant and their consultants held a public information meeting on October 29, 2013. Approximately 7 interested parties attended the public information meeting. City staff was present to hear comments from the public regarding the proposal. Most attendees were from the immediately neighbouring properties to the proposed deposition site. Attendees voiced concern with respect to:

- the large number of trucks required to carry out the deposition of soil;
- the impact of trucks on the road surface and underground infrastructure;
- the narrow width of 40<sup>th</sup> Avenue and its limited ability for vehicles to pass;
- impacts to water quality of the creeks which are used by many properties for irrigation purposes; and
- potential changes to creek flow patterns.

The Engineering Department has reviewed the application and has determined that once depth of fill is resolved with the ALC, staff can work with the applicant to ensure that the fill design satisfies the requirements of the "Surrey Soil Conservation and Protection By-law, 2007, No. 16389" and that mitigation measures are implemented to address potential impacts of the operation on the neighbouring properties. Details of the initial review by the Engineering Department are documented in Appendix III to this report.

Based on the Soil Policy, the next step in the approval process in relation to the subject application is the holding of a Public Input Session (i.e., similar to a Public Hearing). After the Public Input Session, staff will provide a further report to Council regarding the concerns that have been raised regarding the application with a view to Council making a decision as whether the application should be advanced to the Agricultural Land Commission for consideration.

## CONCLUSION

Based on the above discussion, it is recommended that Council set a date for a Public Input Session related to the subject application, which proposes the deposition of 118,000 cubic metres of soil on the lot at 18969 – 40 Avenue.

Vincent Lalonde, P.Eng.  
General Manager, Engineering

JA/TS/CAB/brb

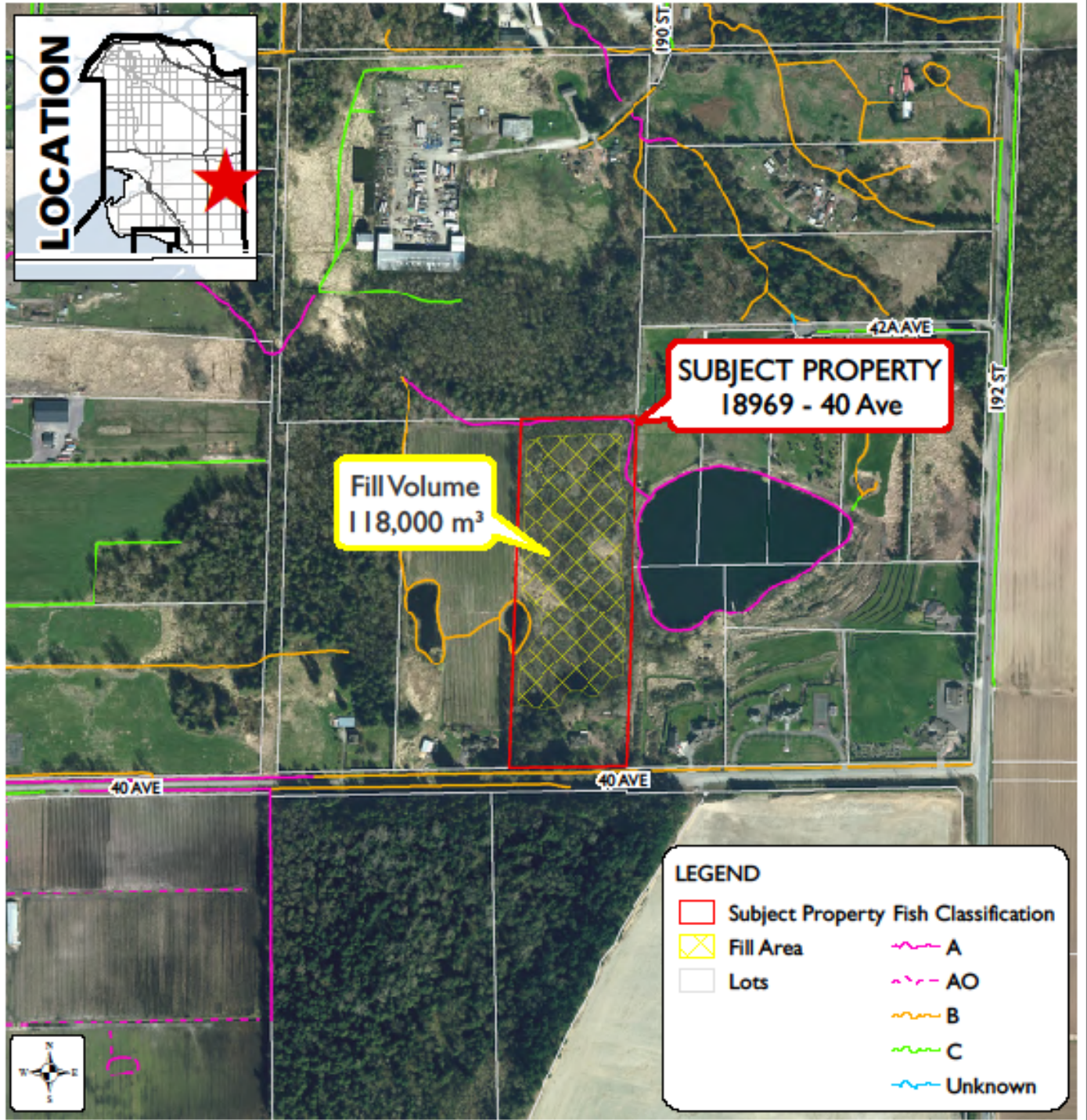
### Attachments:

Appendix I: Aerial Photograph of Site at 18969 – 40 Avenue

Appendix II: Draft Minutes of the Agricultural & Food Security Advisory Committee Meeting at which the Application to Deposit Soil at 18969 – 40 Avenue was considered

Appendix III: Engineering Department Comments on the Soil Deposit Application

# APPENDIX I AERIAL PHOTOGRAPH OF SITE



Produced by GIS Section: 04-Oct-2013, C6S

Date of Aerial Photography: March 30, 2013



**SUBJECT PROPERTY:  
18969 - 40 AVE**

**ENGINEERING  
DEPARTMENT**

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey.  
This information is provided for information and convenience purposes only.

Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: GIS\MAPPING\GISMap of Corporate Legal\UKI by YS-18969-40Ave-AP.mxd



# *Agriculture and Food Security*

## *Advisory Committee*

### *Minutes*

Executive Boardroom  
 City Hall  
 14245 - 56 Avenue  
 Surrey, B.C.  
**THURSDAY, SEPTEMBER 12, 2013**  
 Time: 9:04 a.m.  
 File: 0540-20

**Present:**

Chairperson – Councillor Hepner  
 M. Bose  
 D. Arnold  
 P. Harrison  
 M. Hilmer  
 J. Sandhar  
 B. Sandhu  
 K. Thiara  
 S. VanKeulen

**Regrets:**

T. Pellett, Agricultural Land  
 Commission

**Staff Present:**

R. Dubé, Engineering  
 C. Stewart, Planning & Development  
 M. Kischnick, Planning & Development  
 L. Anderson, Legislative Services

**Environmental Advisory**  
**Committee Representative:**

B. Stewart

**Agency Representatives:**

K. Zimmerman, Ministry of Agriculture

**Guest Observers:**

Kurt Alberts  
 Steve DeJong  
 Maggie Koka  
 Peter Schouten

**A. ADOPTION OF MINUTES**

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**D. NEW BUSINESS**

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2. **Soil Depositing Application**  
 18969 – 40 Avenue  
 File No.: 4520-80 (18969 – 04000)

L. Thompson, Engineering Technologist, Drainage and Environment Section, was in attendance to review his memo, dated September 5, 2013, regarding the above subject line.

A background to the application for the 12.5 acre property, of which the proposed fill area is approximately 7 acres, was provided noting that the previous application for this site proposed 87,000 m<sup>2</sup> of fill to raise the land to 3m. The previous application was, at that time, perceived to be an extreme amount of fill for the site and it was suggested then that the amount of fill be reduced to accommodate a more favourable depth of approximately 1m.

With respect to the new application, the following comments were made:

- The property is heavily treed and not actively being farmed; currently sitting fallow.
- Waterways exist on the northwest and east sides of the property which require fisheries considerations.
- The applicant is now requesting to elevate the proposed fill area by up to 5m and deposit 118,000 m<sup>2</sup> of material in an effort to level the site and raise the growing area; an increase from the original fill application of 3m (87,000 m<sup>2</sup>) with the same footprint.
- The P.Ag. report notes the site soils transition from coarse textured deposits in the southeast corner to well decomposed organic material underlain by poorly drained fine textured deposits in the central and northern portions of the property, and identifies that these types of soils are:
  - Generally very poorly drained;
  - Naturally infertile and acidic;
  - Have a low bulk density; and
  - With excess water from surface and groundwater sources present.
- The P.Ag. report claims the proposed fill would take the land from Class 4 or 5 to Class 2, which would enhance the agricultural capability and resolve the drainage issues, however Engineering staff believe this can be achieved with less fill and previously requested that the proponents explore and exhaust other servicing options, such as installation of drainage tile and/or reducing the volume of material deposited to a maximum 1m depth of topsoil only.
- The proposed fill is not all topsoil. The majority will be other allowable soils with the top layer being topsoil. It is expected to be a multiyear fill site with berries or wine grape production being the end use of the property.
- The neighbouring property recently planted blueberries without importing any soil.

The Committee commented as follows:

- It is difficult to ignore the fact that this revised application is for the complete opposite of what had been suggested in response to the original soil deposition application.
- How does this application affect the adjoining properties in terms of drainage?  
*A report indicates that the subsurface flow could be better.*

A copy of the relevant page from the Soil Management Handbook for the Lower Fraser Valley, regarding recommended management inputs to overcome the soil limitations, was provided for the Committee's information. Comments continued:

- It appears the applicant would also like to plant berries for which they could achieve the soil by doing the management and drainage tile recommendations.
  - One of the suited crops for the soils is blueberries, which is what was planted in the adjacent property.
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- For both blueberries and grapes the natural slope of the property would provide drainage naturally, which is advantageous.
- Staff noted that the applicant proposes berries or grapes, not blueberries.

Discussion ensued with respect to the current elevation of the neighbouring properties. Staff reported that the levels are basically all the same and that there is also a lake that flows well and a significant ditch that ties in.

The map of the soil levels was reviewed, noting the proposed soil height would be quite high; 5m higher than the adjacent property. It was further noted that the final grade proposed would be 17.9 with greater side slopes resulting in a 12% reduction of the footprint of the property. The Committee expressed concern that there was insufficient information provided with respect to the volume and depth of the proposed fill, the hydrology of the site and potential hydrology impacts from the fill on adjacent property.

The applicant asked if he could speak, noting he would like to provide input on the proposed future use. The Chair granted permission and the applicant commented as follows:

- We farm from Delta to Chilliwack and want to continue to farm. There has been a great deal of time and effort placed on how to farm this property. It is property that was previously part of a pit that we feel could be ideal for wolfberries. What isn't apparent within the materials received is that the lake hydraulics into the gravel and during the fall equipment could be lost in there; you need to get above that.
- With respect to the impacts to the neighbouring properties, this property is on a hill and we want to achieve as much sunlight as possible. As such, we went for optimum growth for the wolfberry, which we believe is sustainable farming. We also want a slope for water and for frost, but achieving more sunlight and addressing the hydraulic problem is what we are trying to attain. We believe we will be able to provide better and well managed drainage. If not wolf berry then blueberry is the proposed future use.

In general the Committee agreed that some modification or work is required to make the property more farmable. However, concerns with the extent of the work and elevation required were again noted and it was suggested that a hydrology report outlining how the level would be managed would be preferred prior to advancing this property for farming. In response, staff directed the Committee to the report included with the application that addresses the subsurface flow noting that it would be insignificant and increased temporarily. With respect to how deep the organics are before the gravel, staff further advised of a report that indicates the top soil is 6 – 12 inches. Ground water is 1.2m – 2m below ground.

Staff briefly reviewed the soil application process, advising that not all applications are forwarded to Council. Only those soil applications supported by the Committee to be forwarded to the ALC for consideration will be forwarded to Council for their direction to the ALC.

K. Thiara joined the meeting at 9:12 a.m.

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Comments continued:

- Although this is a difficult piece of land, does this property warrant the need for the fill? This application is for fill specific to a berry that requires alteration to the property. There are other viable crops that could be considered for this property without as great a need for fill.
- The original 3m soil depth should be considered, not 5m, because 5m is for a particular berry which may not be the optimum. The more general purpose would be 3m.
- The level of fill should be determined by the ALC.

It was

Moved by S. Van Keulen

Seconded D. Arnold

That the Agriculture and Food Security Advisory Committee recommend to the G.M. Engineering, support for soil deposition application 4520-80 (18969-04000) for farming purposes be advanced to the Agricultural Land Commission, together with a hydrology report that addresses how the level of soil will be managed, for consideration.

Carried

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## K. ADJOURNMENT



## Engineering Department Comments

### Project Scope

The applicant has applied to deposit 118,000 cubic metres of soil on the property. Aplin and Martin Consulting has been responsible for the coordination of the work plan. The plan focuses on the handling of soil, erosion and sediment control, and environmental compensation/rehabilitation. The proponents anticipate that the project will be completed within 18 months of the date of permit issuance. The concept is to deposit typical fill material on the site and place 0.6m of topsoil on top, to raise the land up by as much as 5m (16.4ft) at the northerly most extent of the fill. The purpose of the fill is to improve the agricultural potential of the lot by eliminating the current wet conditions. A traffic management plan will be implemented to mitigate offsite traffic impacts and will include appropriate signage. An environmental plan has been developed that includes extensive plantings along the West, North and East property lines, which are adjacent to perimeter watercourses.

### Land Use

The subject property is zoned A-1 (general agricultural) and is within the Agricultural Land Reserve (ALR). This A-1 Zone is intended to accommodate agricultural uses on lots with a minimum area of 2 hectares [5 acres] and to protect agricultural land from the intrusion of uses not compatible with farm operations. The surrounding zoning is also A-1 except for the Campbell Heights North Business Park to the Southeast which has been rezoned as Comprehensive Development.

### Agrologist Assessment

An Agrologist's report, prepared by Pottinger Gaherty Environmental Consultants Ltd, was submitted to the City. It outlines that the intent of this project is to raise the site up and out of the wet conditions thus increasing the agricultural capability of the site. The Agrologist's investigation revealed that the native soils are unsuitable for most types of production as the current soil structure restricts drainage, leaving the property waterlogged throughout the Spring months.

The Agrologist report states that the fill proposal would raise the agricultural capability of the site to a Class 2. According to the Agrologist report, the historical soil survey map indicates the unimproved rating of the site is 100% Class 5 organic and wet across the majority of the property. This map also concludes that with improvements the site could be brought up to a 60% Class 2 Organic with "excess water subclass" and a 40% Class 3 Organic with "excess water subclass".

The agrologist report says "Improving drainage and minimizing any potential limitations to variations to the site topography could also be achieved through importation of fill and recontouring the site."

Soil is to be deposited to a depth of up to 5 metres. The agrologist report states that, to date, there has been no "approved fill placement procedure to place agricultural grade fill" implemented. It also states that "improvements may be realized through placement of

suitable agricultural soil which would result in an improved agricultural capability to Class 2.” Most of the fill available in the Surrey area is clays and tills. In the ALC application it states that the “Type of Fill Material” proposed is “predominantly clays and tills with a top layer of 0.6m topsoil.” Agricultural grade fill will be very hard to obtain in a consistent supply. The agrologist report does not recommend a thickness of topsoil to be placed although it does recommend stripping the existing topsoil and storing it for later placement on top. Given typical shrinkage associated with disturbed low bulk density Lumbum and Judson soils, a considerable amount of topsoil will have to be imported. Quality topsoil is also only available in limited quantities without having to pay for it at processors rates which would be cost prohibitive for the required volume. On-site processing is not permitted in this zoning.

There is no discussion of an intermediate coarse layer placed between native soil and new fill which would help facilitate drainage between the layers. Where 2 different soil types interface, vertical drainage problems are very common after a site has been filled. The required volume for the course intermediate layer for this proposal would also be very expensive.

### **Environmental Assessment**

The applicants Environmental Plan submitted by Envirowest Consultants Ltd outlines a detailed riparian planting plan along the West, North and East property lines and the corresponding watercourses adjacent to these property lines. The plan appears to more than meet DFO setback recommendations, as decided on a site visit with City Staff and DFO in association with a previous application.

### **Traffic Management Plan**

The applicant proposes to complete the fill works within 18 months from the date of approval/permit issuance. Based on the volume of soil (total of 118,000 cubic metres) an estimated total of 17,000 dump trucks will enter and exit the site during the 18 month period. The daily volume of trucking activity is approximately 32 trucks per day.

The proposed site ingress and egress is from 40<sup>th</sup> Avenue. The traffic control plan has not been requested by Engineering to date. 40<sup>th</sup> Avenue is part of the mile grid spacing in Surrey and is therefore automatically designated as an arterial road even though during typical operation it is more like a local road, especially when the gate is closed immediately East of the subject property. If the proposal is approved and depending on whether or not the Roberts Bank projects are completed, and the gate is opened or closed will determine whether or not flag people are required and the extent of required signage.

### **Merits of the Proposed Works**

The proposed works will assist in enabling currently unproductive agricultural lands to become productive agricultural lands.

## **Impacts of the Proposed Works**

The amount of soil deposition proposed under the current application will result in approximately 17,000 truckloads of soil being hauled to the site over an 18-month duration.

The soil depositing works at another nearby property, involving more than 18,000 truckloads of soil, resulted in numerous complaints on a regular basis from the neighbours. The complaints related to the impacts that the soil deposition works were having on the neighbourhood included:

- truck traffic
- safety,
- dust,
- noise,
- dirty roads,
- loss of trees,
- groundwater impacts,
- unauthorized filling and visual impacts due to the height and location of the filling.

It is reasonable to say that from the perspective of people in the neighbourhood, who have had their lives significantly disrupted over the last few years as other nearby soil filling operations were in progress, allowing further soil filling to take place at 18969 – 40<sup>th</sup> Avenue could put further stress on the neighbourhood.

## **Current Authorized Soil Deposit Operation in Surrey**

The Engineering Department keeps an inventory of all authorized soil depositing sites in the City. At this time, there are 20 such operations with a capacity to receive approximately 400,000 cubic metres (57,000 truckloads) of soil and there are a couple more large deposition sites almost ready to be permitted which would add at least three hundred thousand more cubic metres of capacity. Based on this inventory there appear to be sufficient opportunities in the City for soil deposition without the need to establish a new soil deposition opportunity at 18969 – 40th Avenue.