Fraser Valley Regional District

STAFF REPORT

To: Electoral Area Services Committee **Date:** 2025-03-13

From: Tracey Heron, Planner I **File No:** 3015-20 2024-09

Subject: Agricultural Land Commission Application for Fill Placement at 39088 Hawkins Pickle Road, Electoral Area G

Reviewed by: Katelyn Hipwell, Manager of Planning
Graham Daneluz, Director of Planning & Development
Jennifer Kinneman, Chief Administrative Officer

RECOMMENDATION

THAT the Fraser Valley Regional District Board refuse to forward the application for Fill Placement at 39088 Hawkins Pickle Road, Electoral Area G, to the Agricultural Land Commission for consideration.

BACKGROUND

Four (4) adjacent properties which together function as a single farm are within the Agricultural Land Reserve (ALR) and are bound on three sides by watercourses. The owner states that regular flooding occurs on these lands, making agricultural activities challenging. As such, they are looking to bring fill onto the four (4) parcels to elevate and even the grade and improve drainage to improve agricultural capability.

FVRD has seen a significant increase in applications involving soil deposits, which coincides with an ongoing regional crisis involving illegal dumping and unauthorized soil deposits, posing significant risks to agricultural operations, the community and the environment. Significant time and effort by FVRD staff and the Board have resulted, underscoring the need for a more coordinated and structured approach to applications that involve soil deposits.

At the November, 2024 FVRD Board meeting, the Board directed staff to create a soil-deposit framework to guide the review and consideration of soil fill applications and referrals. At that time, five (5) applications had been received by FVRD staff for proposed soil deposits, not including files for development permits, and were paused while a framework was being developed. This application was one of those files. As staff felt that the draft soil deposit framework was close to being approved by the Board, it is appropriate to bring the applications forward now.

Staff have considered the application and supporting documents through the lens of the draft soil deposit framework and recommend that the Board refuse to forward the application to the ALC for a decision. The role of the FVRD Board in an ALC application is to review the staff report with the

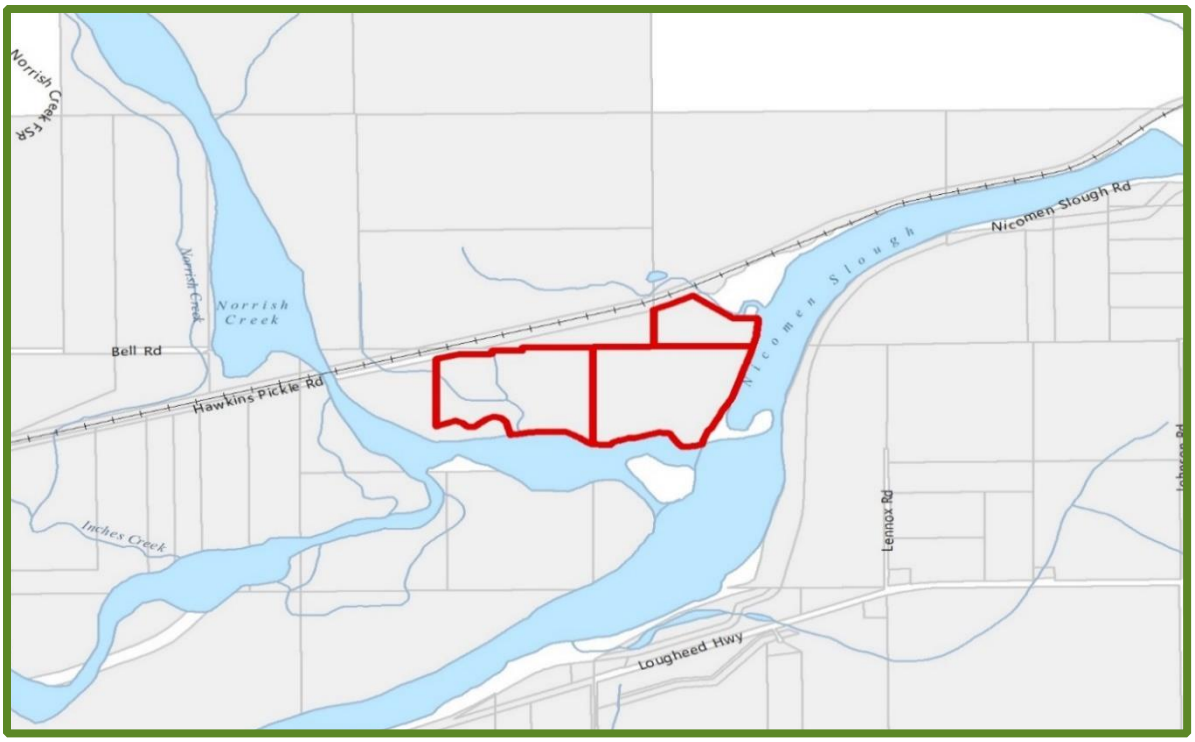
recommendation, the supporting documents provided by the applicant, and determine whether or not the application should proceed to the ALC for a final decision. If forwarded, the Board may provide additional comments beyond this staff report for the ALC's consideration. If the Board decides to refuse to forward the application to the ALC, the application would end without ALC consideration.

The following table provides the basic property information:

PROPERTY DETAILS			
Address	39088 Hawkins Pickle Road	**Area**	G
PID	000-535-532, 000-535-541, 000-535-524, 000-535-583	**Owner**	Vandeburgt Farms Ltd
Folio	775.02643.000, 775.02759.000, 775.02630.000, 775.02760.000	**Agent**	Patrick Dobbyn (Leif Sustainability Ltd)
Lot Size	13.21, 3.56, and 13.21 ha		
Current Zoning	Agricultural 4 (AG-4)	**Proposed Zoning**	No change
Current OCP	Agricultural (A)	**Proposed OCP**	No change
Current Use	Agriculture	**Proposed Use**	No change
Development Permit Areas	1-G - Geologic Hazard 2-G - Riparian Areas		
Agricultural Land Reserve	Yes		

ADJACENT ZONING & LAND USES		
North	^	Rural 4 (R-4); CP Rail, Agriculture, Forest
East	>	Rural 6 (R-6); Nicomen Slough
West	<	Rural 4 (R-4); Forest, Norrish Creek
South	v	Rural 6 (R-6); Norrish Creek

NEIGHBOURHOOD MAP



PROPERTY MAP

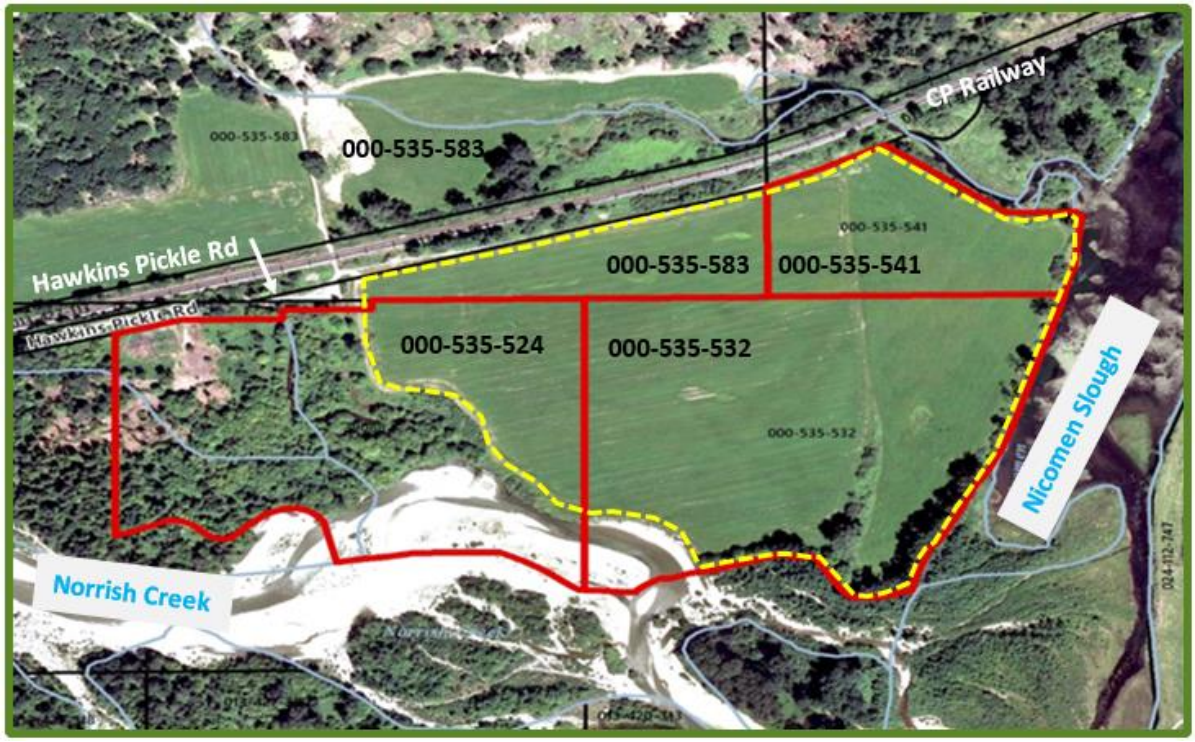


Figure 1: The Property Map outlines the property boundaries in red, while the yellow dotted outline shows the area where the fill is proposed to be placed. The entire Assessment Area, the area within the yellow dotted outline, is within the Agricultural 4 (AG-4) zone, and also the Agricultural Land Reserve.

DISCUSSION

Property Description

The area proposed to have soil fill placed is over four (4) adjoining parcels approximately 38.6 ha (95.3 acres) in size. PID 000-535-583 is not noted in the application as only a small portion of the entire parcel is part of this proposal. The main extent of the parcel extends north of the CP railway. The parcels that are part of this application are noted in Figure 1 by a yellow dotted outline. These parcels have been cleared and planted with field crops for silage, and it is this portion of the lands, hereinafter referred to as the 'Assessment Area', that is subject to this application. This Assessment Area is approximately 19.6 ha (48.4 acres) in size.

The Assessment Area is surrounded on three (3) sides by Norrish Creek to the west and south, Nicomen Slough to the east and south, and Railway Creek to the east. Elevation varies on the west from approximately 5 metres GSC (above mean sea level) adjacent to Norrish Creek to 10 metres GSC near the train tracks, with the eastern lands closer to Railway Creek and Norrish Creek relatively flat with undulations and elevations of 7-8 metres GSC.

The entire Assessment Area is located within the Agricultural Land Reserve (ALR) and as such, is subject to both provincial and local government regulations and bylaws. The Assessment Area is also fully within the Norrish Creek alluvial fan hazard area and the Fraser River floodplain.

All four (4) properties lie outside a standard diked area, although an orphan dike does exist north of the CP railway line on the western side of Norrish Creek. The Department of Fisheries and Oceans (DFO) and CP Railway regularly remove gravel from Norrish Creek. A portion of PID 000-535-524 is used to store and process this gravel; this site is outside the Assessment Area. The FVRD Bylaw Department has been made aware of this gravel storage/processing, and the transport of gravel outside the area, and is assessing the situation to determine if any activities contravene FVRD bylaws.

There are no structures on any of the subject properties south of the CP railway. Access to the properties is at the end of Hawkins Pickle Road, which leads directly onto PID 000-535-583.

Applicant Proposal and Reporting

Proposal

The applicant states the Assessment Area is currently seeded with rye and a mix of grasses, and due to the retention of water in the soil in the lower areas of the properties, soils need to be plowed to accelerate drying before seeding. Some lower areas retain too much moisture and are not seeded to prevent farm equipment from becoming stuck.

To increase crop yields, and to create the possibility of alternative crop growth, such as perennials, the applicant is proposing to raise the Assessment Area through the placement of soil fill as follows:

Details of fill placement proposal	
Volume of material to be placed as fill	185,000 m^3
Total fill placement area	185,000 m^2
Maximum depth of material to be placed as fill	1.0 m
Estimated duration of the project	2 years

While it is only an approximation, the following table provides an illustration of the scale and volume of the proposed volume of soil deposition in terms of truckloads per day over the two (2) year duration. This is based on a five-day work week, exclusive of statutory holidays, and assuming a tandem axle dump truck is carrying 12 m^3 of soil. It must be kept in mind that although a daily number of truckloads has been roughly calculated, soil-fill often occurs when there is soil availability. As such, work may occur with higher hauling intensities for shorter time durations, with periods of minimal or no trucking.

Potential number of truckloads required for volume of soil deposition	
Volume of material to be placed as fill	185,000 m^3
Average truck capacity	12 m^3
Number of truckloads required	15,417
Estimated duration of the project	2 years
Number of truckloads/day, excluding statutory holidays	31

<u>Supporting Documents</u>

In support of their application, the owners commissioned the following agrology report:

- *Land Capability Assessment, dated September 3, 2024, prepared by Madrone Environmental Services Ltd*

The report indicates that while there are no watercourses, waterbodies, or wetlands mapped within the Assessment Area, surface water does accumulate in topographically low pockets throughout the Assessment Area.

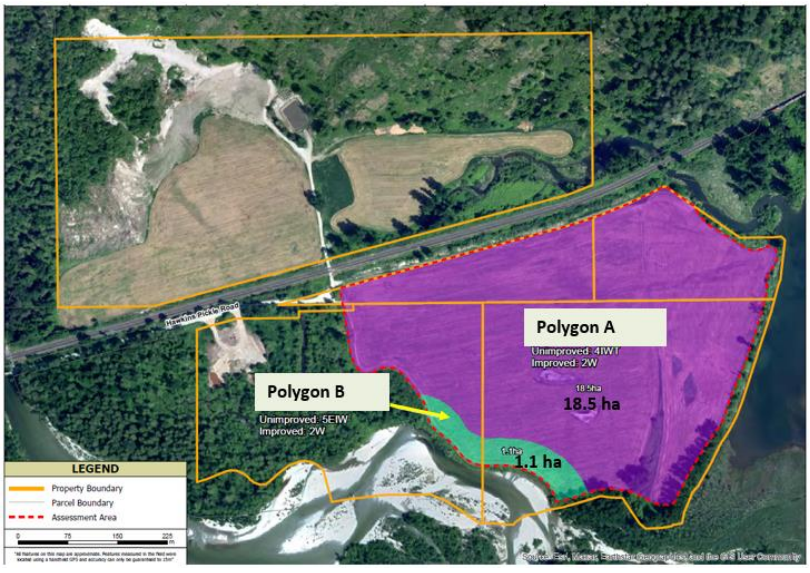


Figure 2: This image shows the Assessment Area outline in a red dotted line. This Area is further divided into Polygon A which is 18.5 ha in size, and Polygon B which is 1.1 ha in size. The Madrone report states that Polygon B experiences significant water erosion from Norrish Creek, and it is due to this relatively rapid erosion rate, that it has been given the unimproved Class 5E erosion (E) limitation.

Four (4) soil test pits were dug and analyzed, and local landforms, drainage, and vegetation were assessed. The Assessment Area was divided into two (2) polygons, as seen in Figure 2, and the Land Capability Classification for Agriculture in BC was used to determine the soil capability specific to each polygon in the Assessment Area.

Lands within the ALR are classified according to their ability to produce a range of crops when considering climate and topography. Soils are classified on a scale of 1 through 7; Class 1 land has little to no limitations that impact agricultural ability, and Class 7 land has severe limitations that greatly impact agricultural capability and crop selection. Classes can then be described by the type of limitation that can influence agricultural capability, such as soil moisture deficiency (A), soil fertility (F), excess water (W), amongst others. Land capability is further classified as having an *improved* or *unimproved* rating. Unimproved ratings are based on soil characteristics without physical improvements, whereas improved ratings are based on assumptions that improvements can be made.

The following soil capabilities, with limitations, were determined:

	Polygon A	Polygon B
Unimproved soil	4IWT	5EIW
Improved soil	2W	2W

T – Topography
W – Excess water
I – Inundation
E – Erosion

Polygon A – 18.5 ha
Assessed as a Class 4I, inundation limitation, these lands are subject to either frequent or occasional overflow during the growing period causing moderate crop damage and occasional crop loss. A Class 3W excess water limitation is also placed on this polygon, and while this classification may cause minor crop damage, the owners have stated that the Assessment Area does drain well during the dry periods. A Class 2T topography limitation is applied to Polygon A due to the undulation variability in the land.

Polygon B – 1.1 ha
Over the past 20 years, Polygon B has experienced significant water erosion and land loss from Norrish Creek. Due to the relatively rapid pace of erosion, it can be assumed that the land will keep eroding at the same rate. As such, the Class 5EIW was given.

The report states that the client wishes to improve the agricultural land capability by improving the soil/area conditions, and is looking for a long-term solution to the chronically wet lands. After a complete assessment of the properties, Madrone had the following recommendations:

- Soil importation to raise and level of land by 0.5 metres to help alleviate the existing Water (W), topography (T), and Inundation (I) limitations;
- Consult a professional land surveyor to provide a detailed topographic site survey and accurate volumetric estimates for imported soil volumes required; and

- Consider protective measures (i.e., diking or armouring) to be installed in the Assessment Area (or where deemed appropriate by a professional hydrologist and/or engineer) to protect the long-term functionality of the cropland and mitigate further erosion.

Through soil analysis and site study, Madrone demonstrated that agricultural capability could be increased in the Assessment Area through the placement of fill. Inconsistency was noted, however, with the amount of soil fill proposed between the agrology report and the application.

The agrology report by Madrone was only able to provide a high-level estimate of soil fill as no surveyed cross-section was provided with which to calculate the volume. The estimate that was provided is approximately 92,500 metres^3, based on raising the land height by 0.5 metres. This is half the volume of soil, and half the depth of soil fill as proposed in the application.

The absence of a surveyed cross-section of the Assessment Area is noted as a gap in technical reporting that would allow for correct determination of the amount of fill needed. Madrone also indicated the lack of reporting for protection works to ensure the proposed fill would not be eroded into the watercourses during regular flooding events.

FVRD Bylaws and Framework

FVRD Considerations on Fill Placement

The draft soil deposit Framework serves as a guide in the review and assessment of applications involving soil deposits. First, staff consider whether the application is a discretionary (i.e. ALC placement of fill application) or a non-discretionary application (i.e. development permit application), and determine if there may be other agencies with responsibilities (i.e. Ministry of Transportation through road use, access, etc). While the FVRD is not a referral agency on soil fill applications, information can be shared.

Staff then closely regard Board approved policies within the Electoral Area official community plan for direction, or other bylaws such as zoning and floodplain management, for consideration of impacts on neighbouring properties, or cumulative floodplain effects. The type of reporting, or the lack of reporting, provided by the applicant in support of the proposal is also considered.

Consistent with the draft Framework, the main considerations for not forwarding a soil fill application to the ALC include:

- Large-scale, area-wide soil deposits;
- Impacts on adjacent properties and the broader community;
- Cumulative floodplain effects;
- Incomplete applications (missing key supporting technical reports); and
- Lack of demonstrated qualified professional (QP) oversight

Using the Framework as a guide, staff determined that the proposed fill deposition with a depth of 1 metre over four (4) properties with an area up to to 18.5 ha (45.7 acres) in area, would classify as a large-scale, area-wide soil deposit application. Additionally, the only supporting documentation submitted to support the application was an agrology report. The report identifies that there was no cross-section of the land to properly calculate the volume of soil needed, and that there was no documentation on protective measures to be put in place to protect the long-term functionality of the cropland, and to mitigate further erosion. Additionally, the agrologist report recommended that a lesser amount of fill be placed. Refusal to forward the application to the ALC is consistent with the Framework.

Broader Community Impacts

Staff also feel there may be potential community impacts involved with the soil fill application, and that the neighbourhood may take on an industrial character, with a high frequency of dump trucks transporting soil through the area and the activity of heavy equipment for a sustained period. Increased off-site impacts from noise, hauling, and dust are similar to the impacts arising from industrial activity.

Cumulative floodplain impacts are an additional relevant consideration for the proposal. However, no assessment of these impacts has been provided with the application. No mitigation measures have been provided to show the prevention of added soil from being transferred downstream during flooding and erosion events, or to address how the water that once flowed onto and retained on the Assessment Area, could potentially now flood other properties downstream.

Zoning

Two of the four (4) parcels are split zones, although the Assessment Area is zoned Agricultural 4 (AG-4) under *Fraser Valley Regional District Zoning Bylaw No. 1638, 2021*.

The primary uses within the AG-4 zone are agriculture-related, with Residential Use also being permitted. The Assessment Area is currently used for agricultural purposes. The intent of the soil placement is to increase the agricultural capability of the lands, and to possibly grow alternative crops, and not just grasses.

The use of the land for agricultural purposes aligns with FVRD zoning policies.

Official Community Plan

The subject properties are all designated Agricultural (AG) under *Official Community Plan Bylaw No. 866, 2008*. A significant number of parcels within this designation in Area G are within the 1:200-year floodplain of the Fraser River. While this may cause some issues, it is also a contributing factor to the high quality soils found in the area.

The policies of the Official Community Plan (OCP) are to preserve Agricultural Land Reserve (ALR) land within the OCP, to ensure that only agricultural uses and uses associated with, and complementary to, agriculture are permitted.

It is the policy of the Regional Board that:

6.1.6 Agricultural areas shall be used for only agricultural, conservation, park and park reserve, recreation, silviculture, single-family residential, accessory residential, and associated rural residential uses.

Staff comments: The intent of the soil placement is to increase the agricultural capability of the lands. This aligns with FVRD OCP policies.

6.1.8 Agricultural areas in the Agricultural Land Reserve shall be used in accordance with the Agricultural Land Commission Act, regulations thereto, and Orders of the Commission. New non-farm uses on land within the ALR that are not exempted under the Agricultural Land Commission Act must be approved by the Provincial Agricultural Land Commission and shall be in accordance with the standards of the Responsible Authorities.

Staff comments: ALC regulations are being followed as demonstrated by this application for the deposit of soil on ALR lands.

6.1.9 The removal of soil or placing of fill on land in Agricultural areas shall be undertaken only in accordance with the Agricultural Land Reserve Use, Subdivision and Procedure Regulation and FVRD Soil Removal and Deposit Bylaw No. 0729, 2006.

Staff comments: The FVRD Soil Removal and Deposit Bylaw no longer exists. Until a new soil deposit bylaw is established, FVRD staff created a soil deposit framework that outlines considerations, limitations, and recommended approaches when soil-related applications are presented. This staff report considers this new framework.

The Assessment Area of the subject properties lies outside of development permit area (DPA) 1-G for geologic and stream hazards. However, s. 11.1 of *Official Community Plan Bylaw No. 866, 2008* states that Norrish Creek poses the potential for flash flooding, high-velocity flows, debris flow, and erosion, and that the orphan dike along the western bank of Norrish Creek, northwest of the subject properties, has major problems. This inundation of flood waters by both Norrish Creek and Deroche Slough, and erosion by Norrish Creek, has affected the Assessment Area for years.

The agrologist report states '*Standard land management practices to improve an inundation limitation are restricted to diking*'. It goes on to state that the property owner has pursued dike protection works for the Assessment Area, but understood that the dike would become owned by the Province, and it would severely limit the remaining farmable land. The placement of soil to raise the agricultural lands is an alternative approach.

The OCP also demonstrates that the two (2) southern properties, PID 000-535-532 and PID 000-535-524, are adjacent to Park and Conservation Area designations, with the areas containing important wildlife or environmental value. Riparian habitats within Area G are extremely productive and biologically diverse, but are subject to a variety of pressures and influences which appear to degrade

them over time. For the preservation of this area's wildlife and environmental values, Ducks Unlimited now owns eight (8) properties adjacent to Nicomen Slough, with two of the properties just south of the Assessment Area.

In 1997, Fisheries & Oceans Canada classified many streams of the lower Fraser Valley as *lost*, *endangered*, *threatened*, or *wild* depending on factors such as amount of riparian vegetation, water diversion, forestry activity, and urban development. The following Table shows the classification of Norrish Creek and Nicomen Slough:

Stream	Classification	Reason
Nicomen Creek/Slough	Endangered	Riparian removal, channelization/dyking, water quality
Norrish Creek	Endangered	Channelization/dyking, water diversion

Protection of the environment and preservation of the area's wildlife should be addressed as part of applications which could cause impacts to Norrish Creek and/or Nicomen Slough.

Floodplain Management Bylaw

The subject properties are located fully within the Fraser River floodplain as well as the Norrish Creek alluvial fan hazard area. For any development on alluvial fan hazard areas, building inspectors may call for a geotechnical assessment to ensure that the development would be safe for the use intended. No works that require a building permit are proposed as part of this application. As such, there is no mechanism for an FVRD Building Inspector to require a geohazard report to assess the transfer of risk posed to adjacent lands from the proposed soil deposit.

Other Agency Regulations

Soil fill deposits may have broad effects on neighbouring properties, the community, and the natural environment. These effects may reach beyond local government policies, and need to be addressed on a case-by-case basis.

Agricultural Land Reserve (ALR)

The application for soil deposit on ALR land is made through the Agricultural Land Commission (ALC), with the FVRD as the recipient of the referral, and therefore, is not responsible for sending referrals to provincial ministries, agencies, or stakeholders. However, information can be provided.

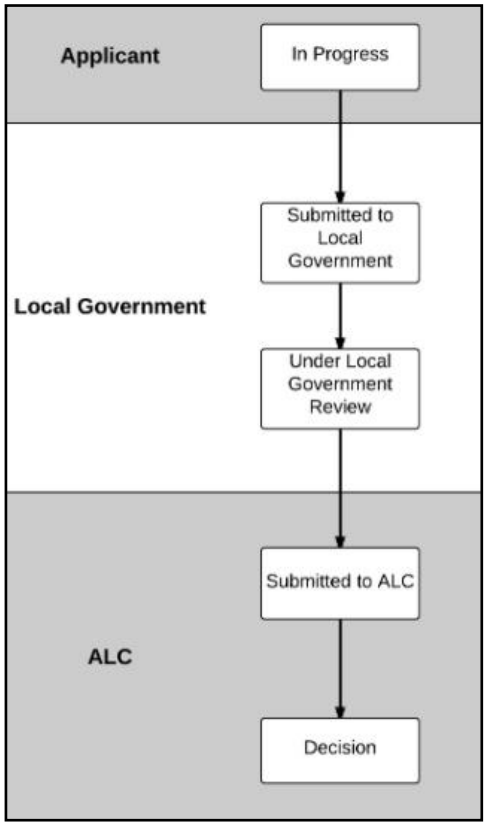
The ALC relies on local governments to identify any infrastructure concerns, off-site impacts, and broad community impacts related to floodplains and flooding.

Ministry of Transportation and Transit (MOTT)

MOTT has authority over the roads within the Electoral Areas. The FVRD is a referral agency for ALC application, and as such, information about the application was provided to MOTT. While the FVRD did not seek comments, MOTT did express concern about the preservation of the lifespan of Hawkins Pickle Road and bridge crossings.

The application should ensure that all necessary MOTT approvals are obtained, and any concerns have been addressed.

Role of the FVRD on ALC referrals



The FVRD is a referral agency for ALC application files, and the role of the Board is to review the proposal and determine whether the application should proceed to the ALC for a final decision. If forwarded, the Board may provide additional comments for the ALC's consideration. If the Board decides to refuse to forward the application, the application will end without ALC consideration. The applicant would need to make a new application to the ALC should they wish to continue with their proposal.

Provincial law authorizes a regional district to regulate, by bylaw, the removal or deposit of soil and related activities. The FVRD does not currently have a bylaw specifically regulating the placement fill. If the FVRD establishes a soil deposit bylaw during a period of soil deposit in the Assessment Area, any soil being deposited would immediately be subject to that bylaw, which may include a permit, fees, and technical reporting.

Through a full review of the application, FVRD bylaws, and the supporting agrologist report, staff note that the proposal is consistent with the area zoning and official community plan bylaws, and that the agrologist report states that fill could increase the soil capability on the lands, thus increasing the agricultural productivity.

However, staff also note that there is a discrepancy in the amount of fill proposed in the Assessment Area between the application and the agrologist report. Accurate calculation of the amount of soil needed could be accomplished with a surveyed cross-section of the Assessment Area. In addition, the application was not supported by reporting on how the fill could be contained on site during times of regular flooding. Sedimentation into the adjacent watercourses could result in cumulative flood hazards to the area as well as negative impacts to the natural environment. Broader community effects may also result with this application and create a neighbourhood industrial character through increased truck traffic, noise, and dust issues.

Using the Framework as a guide, staff reviewed the application and supporting document, fully reviewed the OCP and other relevant bylaws, and each consideration in the Framework. As a result, staff recommend that the Board refuse to forward the application to the ALC for a decision. This is due to the area-wide proposal, lack of supporting documents, and limited considerations regarding broader community impacts and cumulative floodplain effects.

The applicant may consider an alternative proposal that is minor in nature that would better align with the Framework to forward to the ALC for their consideration. The Board may consider forwarding an application for minor soil deposit applications where fill is needed for:

- Access construction;
- Building construction; and
- Depression filling.

Additional technical assessment of the property, such as a soil cross-section, may identify opportunities for depression filling in select areas of the Assessment Area as a viable option to sufficiently increase the soil capability of the lands.

The applicant would need to review all the requirements for reporting for soil fill applications with the ALC and consider a new application at their own risk. It may also prove beneficial for the applicant to contact an ALC South Coast Planner to go over ALC requirements and limitations on soil and fill applications.

COST

The $750 FVRD portion of the application fee has been paid by the applicant. The ALC fee will be paid by the applicant if this application gets forwarded to the ALC for review.

CONCLUSION

A local farm owns contiguous properties adjacent to three (3) watercourses that regularly top their banks. To reduce flooding potential and increase crop viability, the owner is proposing to deposit up to 1.0 metre of fill across four (4) properties in what is noted in this report as the Assessment Area.

The FVRD has a draft soil deposit Framework for consideration of soil-related development applications that allows for a more coordinated and structured approach to soil deposit applications. This Framework was created to give the FVRD Board direction when soil applications are presented.

Through the use of this framework, staff recommend that the Board refuse to forward this application to the ALC for a decision for the following reasons:

1. The application is for a large-scale area-wide soil deposit.
    - The area proposed is over four (4) adjacent parcels; and,
    - The Assessment Area covers 18.5 ha (45.7 acres).
2. There are noted gaps in technical reporting, and information provided with the application.
    - Lack of cross-section, or detailed topographic site survey, to allow for accurate soil volume calculations; and,

- Lack of reporting by a professional hydrologist or engineer to provide information on bank protection, or mitigative effects to prevent erosion of the placed fill.

3. There are reservations or serious concerns regarding broader community impacts not addressed.
    - Scale of the fill activity takes on the character of an industrial use;
    - Impacts from increases in truck traffic, noise, and dust are akin to impacts from an industrial use; and,
    - Potential for negative impacts to wildlife and the natural environment are not adequately assessed.

OPTIONS

Option 1 – Refuse (staff recommendation)

> MOTION: THAT the Fraser Valley Regional District Board refuse to forward the application for Fill Placement at 39088 Hawkins Pickle Road, Electoral Area G, to the Agricultural Land Commission for consideration.

Option 2 – Forward to the ALC with comments

The FVRD Board has the option of forwarding this application to the ALC for a decision with added comments. These comments would be where the Board has reservations about broader community impacts, such as cumulative floodplain effects and/or impacts on adjacent properties, or there are gaps in technical reporting or information provided. If appropriate, the following motion would be suitable:

> MOTION: THAT the Fraser Valley Regional District Board forward the application for Fill Placement at 39088 Hawkins Pickle Road, Area G, to the Agricultural Land Commission with the following comments:
>
> 1. The area-wide fill placement proposed in the application is missing technical reporting related to grading, drainage, bank protection, and impacts to adjacent properties and the natural environment. Without this information, the broader community impacts related to flooding and land use are unknown.
> 2. The applicant is responsible for obtaining any necessary approvals from other government agencies including, but not limited to, the Ministry of Transportation and Transit, prior to any fill placement.
> 3. Qualified professionals should provide assurance for works required, monitoring, and post-fill placement reporting.