

To: Electoral Area Services Committee

Date: 2018-02-15

From: Katelyn Hipwell, Planner 1

File No: 9600-25-2017-04

**Subject: Site Specific Floodplain Exemption Application for 30420 Trans-Canada Highway, Electoral Area "B"**

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### RECOMMENDATION

**THAT** the Fraser Valley Regional District Board approve the Site-Specific Floodplain Exemption Application to reduce the Fraser River setback from 60 metres to 45 metres for the placement of a new mobile home and construction of a new accessory structure (shop) on the property located at 30420 Trans-Canada Highway, Electoral Area B on the basis of the report prepared and reviewed by a Professional Geoscientist at Madrone Environmental Services Ltd. stating that the proposed setback exemption would allow for safe use of the property;

**SUBJECT TO** the Fraser Valley Regional District entering into a covenant with a priority charge to be registered on title of the property pertaining to the setback exemption and building permit approval for 30420 Trans-Canada Highway;

**AND FURTHER THAT** the Fraser Valley Regional District Board authorize its signatories to execute all documents relating to this matter.

### STRATEGIC AREA(S) OF FOCUS

Provide Responsive & Effective Public Services  
Support Healthy & Sustainable Community

### PRIORITIES

Priority #3 Flood Protection & Management

### BACKGROUND

The applicant, Mike Cook, proposes to place a mobile home and construct a detached workshop on their property at 30420 Trans-Canada Highway in Electoral Area "B". The property is located outside the floodplain of the Fraser River due to elevation but within the 60 metre floodplain setback.

## Property Details

Address: 30420 Trans Canada Highway,	
	<b>Owner</b> Mike Cook
	<b>Agent</b> n/a
	<b>EA</b> Electoral Area "B"
	<b>Zoning</b> Rural Resource (R-4)
	<b>OCP</b> n/a
	<b>DPA</b> n/a
	<b>ALR</b> No
<b>Comments:</b>  Property is located outside OCP area.	

Neighbouring Lands	
North : BC Hydro ROW, Fraser River	
West: Canadian Pacific Railway, Trans Canada Hwy, 	East : Fraser River, Canadian National Railway beyond
South: Single Family Dwelling, Gordon Creek Beyond	

## Land Use

The subject property is located at 30420 Trans-Canada Highway and is approximately 2.9 acres in size. The property is located outside the Official Community Plan areas for Electoral Area "B", and therefore has no OCP designation. The property is zoned Rural Resource (R-4) per *Zoning Bylaw for the Rural Portions of Electoral Area "B", Regional District of Fraser-Cheam Bylaw No. 801, 1989*. The proposed mobile home and detached workshop are permitted uses in the R-4 zone.

## Proposal Details

The applicant, Mike Cook, proposes to construct/place a single family dwelling or new mobile home and construct a detached accessory structure (shop) on the property at 30420 Trans-Canada Highway, Electoral Area "B". There are currently no structures on the property. The property owner has not yet made a building permit application for the proposed construction.

## Fraser River Floodplain Setback and Elevation

The subject property is outside the 1:200 designated Fraser River floodplain boundary; however, it is located, almost entirely, within the 60 metre setback from the river. There is no diking infrastructure protecting the properties within this area of the Regional District.

*FVRD Floodplain Management Bylaw No. 0681, 2005* establishes a minimum flood construction level of 6.0 metres above the natural boundary of the Fraser River for the subject property. Additionally, the *Bylaw* establishes a floodplain setback of 60.0 metres from the natural boundary of the Fraser River. This 60.0 metre setback takes up the entire property except for a small area at the south east corner of the lot.

The *Bylaw* provides general exemptions to the required flood construction levels specified, but does not provide general exemptions for floodplain setbacks. As such, a site specific exemption is requested by the property owner.

The *Bylaw* allows the FVRD Board to exempt a person from meeting the setback requirements in relation to a specific parcel of land, provided that:

- i. The exemption is consistent with the Provincial Guidelines and as they may be amended from time to time; or
- ii. The Regional Board has received a report that the land may be used safely for the use intended, which is certified by a person who is a professional engineer or geoscientist and experienced in geotechnical engineering; and
- iii. The owner shall enter into a restrictive covenant under Section 219 of the *Land Title Act*.

The *FVRD Floodplain Management Bylaw No. 0681, 2005* is consistent with Section 524 of the *Local Government Act*, which establishes the legal authority to grant exemption requests for floodplain setbacks.

## **DISCUSSION**

### **Engineering Report**

In support of the request to reduce the minimum setback to the Fraser River, the property owner has provided a report dated December 18, 2017 by a Professional Engineer from Madrone Environmental Services Ltd. which includes a Geohazard Assurance Statement as prescribed by the FVRD and Engineers and Geoscientists of BC (EGBC). The report, attached hereto as Schedule "A", concludes that the reduction of the Fraser River setback to 45 metres to accommodate the placement of a mobile home and construction of an accessory structure (shop) on the upper terrace of the subject property, results in the property being safe for the use intended based on the following:

- The report references the five year high water mark as the baseline measurement, which is slightly higher in elevation than the approximate natural boundary of the river.
- All habitable buildings must be built at an elevation greater than 55.35 m GSC (6.0 m above the five year high water mark of the Fraser River, consistent with the FVRD Floodplain Management Bylaw).
- The subject building site is located at 59.68 m GSC, thereby exceeding the required flood construction elevation of 6.0 m above the five year high water mark of the Fraser River by 4.33 m GSC.
- There has been no evidence of flooding on the property since before 1929.
- The Professional Engineer estimates a probability of less than 1:200 annual occurrence of Fraser River flooding the upper terrace of the property based on mapping a conservative buffer above past estimates of maximum flood level elevations.
- An additional setback of 10m for all habitable buildings from the crest of the slope of the upper terrace (Slope 2) to avoid the localized landslip hazard presented by the slope.

The report requires a few minor amendments which do not affect the overall conclusion of the report. It is anticipated that a revised report will be submitted prior to consideration of the application by the FVRD Board.

### **Previous Engineering Report and Covenants**

A previous geotechnical hazard assessment report was prepared for the subject property by P. Machibroda Engineering Ltd. dated November 25, 1998, including amendments and addendums dated July 29, 1999; November 5 1999; and December 6, 1999. This report was prepared for the purposes of identifying two safe building envelopes to accommodate the original subdivision of the property. The report identified a safe building envelope by establishing a 60 metre setback from the Fraser River.

Two covenants were registered on the property title at the time of subdivision:

KN115809

- Covenant with Ministry of Transportation and Infrastructure and the Fraser Valley Regional District
- Identifies a safe building envelope on the southwest corner of the lot per the recommendations of the Geotechnical Report

KN115810

- Covenant with Ministry of Environment and the Fraser Valley Regional District
- Establishes a 60 metres setback from the Natural Boundary of the Fraser River for all buildings or structures

The registered agreements are consistent with Provincial Flood Hazard Guidelines and the FVRD Floodplain Management Bylaw. Both covenants are now administered solely by the Ministry of Transportation and Infrastructure.

The Provincial Approving Officer for the Ministry of Transportation together with the Ministry's geotechnical engineer, have reviewed the new Geohazard Assessment of the property and the recommendations presented by Madrone Environmental Services Ltd. The Ministry is amenable to having the existing covenants discharged subject to the site specific exemption request being approved by the FVRD and the registration of a new covenant establishing a 45 metre setback from the Fraser River as recommended in the Geohazard report.

### **Provincial Policy**

The Province of BC adopted the *Flood Hazard Area Land Use Management Guidelines* in May 2004 and subsequently updated them in 2011.

The goals of the provincial guidelines are to:

- reduce or prevent injury, human trauma and loss of life; and,
- minimize property damage during flooding events.

With respect to "requests for modification of bylaws", such as site specific exemption requests, the guidelines state:

*Subject to review by and if acceptable to the local government, a flood plain bylaw may be modified. The local government may alter any bylaw condition to best match the flood hazard provided the level of protection is not altered.*

*Prior to agreeing to a modification, other exceptions in the surrounding area should be reviewed to ensure consistency and a summary report prepared. Review by the local government may not support modification on technical grounds but the applicant may nevertheless have demonstrated a hardship. Setback requirements should not be reduced unless a serious hardship exists and no other reasonable option is available. A valid hardship should only be recognized where the physical characteristics of the lot (e.g. exposed bedrock, steep slope, the presence of a watercourse, etc.)*

*and size of the lot are such that building development proposals, consistent with land use zoning bylaws, cannot occur unless the requirements are reduced.*

*In order to avoid setting difficult precedents these site characteristics should be unique to the subject property and environs. The economic circumstances or design and siting preferences of the owner should not be considered as grounds for hardship. Before agreeing to modification, consideration should be given to other options such as the use of alternate building sites, construction techniques and designs (e.g., constructing an additional storey and thereby reducing the size of the 'building footprint').*

The rationale outlined in the report submitted in support of this site specific exemption request is generally consistent with the provincial policy. The level of protection, as determined by the Professional Engineer, would not be reduced by the proposed reduction in the required setback from the Fraser River. The estimated probability of flooding on the identified safe area of the property remains less than a 1:200 probability of annual occurrence.

Most of the property is within the 60 metre Fraser River setback which limits the buildable area to a small portion of the southwest corner of the lot. The reduced setback of 45 metres would allow for a slightly larger buildable area for the placement of a mobile home and accessory structure (shop) on the most elevated portion of the property, far exceeding the minimum flood construction level requirements of the *FVRD Floodplain Management Bylaw*.

### **Precedence in Considering Approval of this Application**

The FVRD Board considers all applications on their own merits based on the facts and issues specific to the application. Support or denial of this application does not hinder the FVRD Board in considering other applications. However, successful requests for site specific exemptions inform broader community expectation and may be seen as standard-setting by the community.

#### *Site Specific Exemption 2015-01 & 2006-05 for 27454 Yurkin Road, Electoral Area B*

The property owners of 27454 Yurkin Road applied for and were granted site specific exemptions in 2006 and 2015 to reduce the minimum Fraser Setback to accommodate the construction of a single family dwelling and a detached shop respectively. The property was similarly located at an elevation exceeding the minimum flood construction level recommended by the Ministry of Environment and the FVRD Floodplain Management Bylaw.

### **CONCLUSION**

#### **Options for Consideration**

In considering the request by the property owner to reduce the minimum Fraser River setback to allow for the placement of a mobile home and the construction of an accessory structure (shop) on the property located at 30420 Trans-Canada Highway, the FVRD Board may wish to consider the following options:

1. Refuse the request and require the proposed construction conform to the existing Fraser River setback as required by the FVRD Floodplain Management Bylaw and the Ministry of Environment covenants currently registered to the property title; or,
2. Allow the request and permit the proposed construction at a reduced setback of 45 metres from the Fraser River, as recommended in the Professional Engineer's report.

Staffs recommend that the FVRD Board select Option 2 to allow the request for a site specific exemption to reduce the minimum setback to the Fraser River from 60 metres to 45 metres. Approval is subject to the registration of a covenant to acknowledge the flood hazard and that the applicant has chosen to build closer than the specified 60 metre Fraser River setback; to save-harmless the Fraser Valley Regional District in the event the storage of goods are damaged by floodwaters; and, to waive financial assistance in the case of flood damage as required by the Province. The previous covenants registered at the time of subdivision of the property must be discharged from the property title.

## **COST**

The application fee of \$400 has been paid by the applicant.

## **COMMENT BY:**

**Graham Daneluz, Deputy Director of Planning & Development**

Reviewed and Supported

**Margaret Thornton, Director of Planning & Development**

Reviewed and Supported

**Mike Veenbaas, Director of Financial Services**

No further financial comments

**Paul Gipps, Chief Administrative Officer**

Unavailable for comment

**Appendix "A"**  
**Geohazard Assessment for 30420 Trans-Canada Highway, Yale, BC**  
**dated December 18, 2017**