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## **MEMORANDUM**

**To: Chair & Members of the Electoral Area Services Committee  
Chair & Members of the Regional Board**

**From: Lisa Grant, Planner 1**

**Date: October 29<sup>th</sup>, 2010**

**Subject: Official Community Plan Amendment Bylaw 0994, 2010, Hemlock Valley**

**File No.: 6480-30-039**

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### **RECOMMENDATION**

THAT the Regional Board:

1. Rescind 2<sup>nd</sup> reading of Fraser Valley Regional District Official Community Plan Amendment Bylaw No. 0994, 2010, given on March 23, 2010;
2. Determine that pursuant to section 882(3) of the Local Government Act, Bylaw 0994, 2010 as amended is consistent with FVRD's current Waste Management Plan and Financial Plan;
3. Determine that pursuant to section 865(1) of the Local Government Act, that Bylaw 0994, 2010 as amended is consistent with the FVRD's Regional Growth Strategy; and
4. Second reading be given to Fraser Valley Regional District Official Community Plan Amendment Bylaw 0994, 2010 as amended.

### **ISSUE**

The Official Community Plan is proposed to include new amendments reflecting the updated snow avalanche report.

### **BACKGROUND**

Since first reading, the Regional District commissioned Dr. David McClung to update the original snow avalanche hazard assessment. In his 2000 report, Dr. McClung stated that returning forest cover would help to reduce the threat of snow avalanches over time. The updated report found that the returning forest cover has improved the situation for 66 properties (previously 85 lots were located in a snow avalanche hazard area). These properties are now located in a 'white' zone and are generally safe for residential construction. However, 19 properties are designated as 'blue' zone in which a site specific evaluation is required to determine whether the property is safe for residential use.

Dr. McClung applied the Canadian Avalanche Association's standards for safe thresholds in snow avalanche hazard zones. Under this framework, 'blue' zones are areas with a 1:300/500 return period and an impact pressure of greater than 1 kPa (Kilopascal). Residential development is not recommended in 'blue' zone areas. In some cases a site specific review may determine that properties are protected specific geographic and terrain features (i.e. a bluff re-directing the snow) which protect the property. Residential use of such properties may be deemed safe.

Site specific evaluations were outside the scope of this updated overview report.

## **DISCUSSION**

### **Amended DPA 2-HV**

Staff is recommending that development permit area 2-HV (Long Term Snow Avalanche) be amended to reflect the findings in the updated snow avalanche report. The majority of properties (white zone properties) will no longer be required to complete a site specific snow avalanche report nor obtain a development permit for snow avalanche hazards. However, they are still required to complete development permits and hazard reports for other geotechnical and hydrological hazards that may impact the property.

‘Blue’ zone properties will be required to complete a site specific snow avalanche report by a qualified professional proficient in snow avalanche evaluation to determine if the property is safe for the use proposed and/or whether the hazard can be mitigated to a level equivalent to a ‘white’ zone. In some areas to effectively mitigate the hazard community protective works may be required. This may be outside the capabilities of an individual property owner. Below is a table summarizing CAA’s guidelines for snow avalanche rating categories:

|              | <b>Impact Pressure (kPa)</b> | <b>Potential Damage</b>             | <b>Zoning for Occupied Structures</b>   |
|--------------|------------------------------|-------------------------------------|---|
| <b>White</b> | Less than 1 kPa              | Relatively harmless to people       | Permanently occupied structures normally permitted.<br><br>Buildings where large numbers of people will gather (schools, hospitals multi-family units) must only be placed in white zone with a high confidence that the risk is low. |
| <b>Blue</b>  | Greater than 1 kPa           | Break windows, push in doors        | Industrial plants and temporarily occupied structures are possible with specified conditions (i.e. re-enforced structures, avalanche defenses and evacuation plans)   |
| <b>Red</b>   | 30 kPa                       | Destroy wood-frame houses           | New Buildings are not normally permitted.   |
|              | 100 kPa                      | Uproot mature spruce                |   |
|              | 1000 kPa                     | Move reinforced concrete structures |   |

Canadian Avalanche Association “Guidelines for Snow Avalanche Risk Determination and Mapping in Canada” 2002 and “Land Managers Guide to Snow Avalanche Hazards in Canada” 2002.

Generally, construction is permitted in the ‘blue’ zone, but residential use is not recommended. Therefore, a site specific report is required to evaluate the property and detail protective works that may be reduce the hazard to a level equivalent to the ‘white’ zone.

### **Attachments**

## **COSTS**

Budgeted for in the 2010 financial plan.

**COMMENTS**

Chief Administrative Officer:

insert comment

Deputy Director of Planning and Development:

Reviewed and supported.

Director of Finance:

Reviewed and supported.

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Lisa Grant  
Planner 1