

# Geohazard Assurance Statement

for Development Approvals

Please complete this form in its entirety. If fields are left blank, the form will be returned.

## A. Project Information

Date \_\_\_\_\_ FVRD File No. \_\_\_\_\_

### Property Information

Project Name & Description \_\_\_\_\_

Legal Description \_\_\_\_\_

Site Address \_\_\_\_\_ PID \_\_\_\_\_

### Client Information

Name \_\_\_\_\_

Role  Property Owner  Developer  Other

Client Address \_\_\_\_\_

### Qualified Professional Information

Name \_\_\_\_\_

Prof. Designation  P.Eng.  P.Geo.  P.L.Eng.  P.L.Geo.

Company Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

Email Address \_\_\_\_\_ Phone # \_\_\_\_\_

### Geohazard Report Reference

Title \_\_\_\_\_ Date \_\_\_\_\_

*Personal information on this form is being collected in accordance with Section 27 of the Freedom of Information and Protection of Privacy Act, RSBC 1996 Ch. 165; Part 9, Division 1 [Building Regulation] and Part 14 [Planning and Land Use Management] of the Local Government Act, RSBC 2015 Ch. 1; and Section 56 of the Community Charter, SBC 2003 Ch. 26 and will only be collected, used and disclosed for the purpose of administering geo-technical hazard reviews and assurance statements related to development approvals. Questions? Contact FVRD Privacy Officer at 45950 Cheam Avenue, Chilliwack, BC V2P 1N6; 604-702-5000 or 1-800-528-0061; or [FOI@fvrd.ca](mailto:FOI@fvrd.ca).*

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## B. Assurance

Based on the contents of this Assurance Statement and the Report, I hereby give assurance that:  
(Specify ALL that apply.)

Development Permit	The Report will “assist the local government in determining what conditions or requirements under it will impose in the permit”, as required by the <i>Local Government Act</i> (Division 7)
Building Permit	
Community Charter	“The land may be used safely for the use intended”, as required by the <i>Community Charter</i> (Section 56)
Seismic Slope	The Report addresses the requirements of the BC Building Code 2006, 4.1.8.1.6 (8) and 9.4.4.4 (2), as detailed in the BC Building & Safety Policy Branch Information Bulletin B10-01, Jan 18, 2010
Floodplain Management Bylaw Exemption	“The land may be used safely for the use intended”, as required by the <i>Local Government Act</i> . (Section 524)
Subdivision	“The land may be used safely for the use intended”, as required by the <i>Land Title Act</i> (Section 86).
Other (e.g. Zoning Bylaw Amendment, Official Community Plan Amendment, Temporary Use Permit, etc.)	<Insert statement as appropriate>

## C. EGBC Professional Practice Guidelines

The Report and this Assurance Statement should be completed in accordance with the current version of one or both of the following Engineers and Geoscientists BC (EGBC).

- *Legislated Flood Assessments in a Changing Climate in BC*
- *Legislated Landslide Assessments for Proposed Residential Development in British Columbia.*

These two documents are collectively referred to as the “Engineers and Geoscientists BC Guidelines”. The italicized words in this Assurance Statement are defined in the Engineers and Geoscientists BC Guidelines.

The Report has been prepared pursuant to the following Engineers and Geoscientists BC Guidelines (*check one or both as applicable*).

Engineers and Geoscientists BC Flood Guidelines

Engineers and Geoscientists BC Landslide Guidelines

If the Report is **not** prepared pursuant to either of the Engineers and Geoscientists BC Guidelines, please explain.

## D. Background Information

Qualified Professionals **must** confirm and check that each item is included in the Report.

1. Property location map — 8.5 x 11 size
2. Development proposal site plan — 8.5 x 11 size. *If a subdivision, show the parent parcel and all lots to be created, including any remainder.*
3. Description of the proposed development project (including building use) to the extent this is known at the time of Report preparation. *Specify ALL that apply.*

residential

industrial

commercial

institutional

other \_\_\_\_\_

## E. Technical Requirements

### Report Content

4. Relevant information pertaining to the Property and pertinent potential hazards from appropriate background sources, including the FVRD online library.
5. Time limitation or condition statement to describe extent the FVRD may rely on the Assurance Statement and Report for development approvals, and when resubmittal is recommended.
6. Maps, illustrations and diagrams to illustrate areas referred to in the Report.
7. Description of field work conducted on and, if required, beyond the Property.
8. Contact and consultation with the Fraser Valley Regional District. Provide name and title of contact.

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9. Review of relevant FVRD bylaws and other statutory requirements.
10. Restrictive covenants registered against the Property title that pertain to geohazards (obtain copies of covenants from lawyer or notary).
11. Notation of any visibly apparent geohazards or other hazards identified in background reports, which are not identified and addressed in this Report.
  - Yes. Provide details in Section H: GeoHazard Summary Table.
  - No visibly apparent geohazards.
12. Does the report rely on one or more supporting reports, each of which is independently reviewed, signed and sealed. If yes, provide details in Section H: Geohazard Summary Table.
  - Yes. Provide details in Section H: GeoHazard Summary Table.
  - No. Supporting reports were not used.
13. For subdivision approval, the Report addresses natural hazards for:
  - the parent parcel prior to subdivision
  - any lots to be created (including any remainder)
  - not applicable; no subdivision proposed

## Geohazard Assessment, Risk Acceptability and Risk Transfer

14. In considering the above-noted potential hazards that may affect the property, I have:

reviewed and characterized the potential hazard(s)

estimated the potential frequency and magnitude of the potential hazard(s)

referenced supporting reports

Yes

No

identified if a pre-existing assessment of hazard frequency and magnitude was used

Yes

No

considered the potential effects of climate change in the context identified in the Report

considered the potential effects of changed future conditions (upstream watershed changes, forestry activity, land use changes, sea level rise, etc.) in the context identified in the Report

15. This Assurance Statement pertains to all geohazards that are assessed in the Report and any supporting reports, and accurately reflects the contents of those documents.

16. The FVRD has adopted "Hazard Acceptability Thresholds for Development Approvals by Local Government", which provides a specific level of hazard or risk tolerance. I have included a Hazard Summary Table which:

lists all the potential hazards addressed by the Report and any supporting reports

provides an annual return frequency and acceptability threshold classification for the unmitigated condition

proposes mitigative measures to appropriately reduce the geohazard risk

Yes

No

provides an annual return frequency and acceptability threshold classification for the mitigated condition

Yes

No

17. The Report describes the potential transfer of geohazard risk to other properties or infrastructure as a result of the proposed project (including any proposed *mitigation works*) and

Yes, there is a transfer of risk

No, there is no transfer of risk

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## Mitigation and Design Recommendations

The Report contains the following items:

18. Implementation steps for the identified structural mitigation works (in terms of design, construction and approval).
19. Clearly identified safe locations for building(s), ancillary structures, and onsite utility services (as applicable, such as a septic field) out of the natural hazard area as a preferred development alternative.
20. Commentary on the effectiveness of proposed structural mitigation works in terms of ability to reduce the potential hazard impact, and identification of any residual risk that would remain.
21. Proposed operation and maintenance actions that will be necessary in order for the level of safety to be maintained in the future, with indications of who should be responsible for those actions and when.

## Riparian Area Regulation (if applicable)

22. QP must review RAR assessment report to avoid conflict with Geohazard Report recommendations.

## E FVRD Supplemental Requirements

The following points are understood by the Qualified Professional when submitting a Report:

23. Permission is granted to the FVRD to use the Report in considering approval of the proposed development on the property, provided that such permission is limited only to the proposed development project for which the Report was prepared.
24. Methodology used in the Report is described in sufficient detail to facilitate a professional review of the study by the FVRD when necessary.
25. Professional liability insurance coverage of at least \$1 million per claim is carried by the QP.
26. Third party review or supplemental information may be required by the FVRD where complex development proposals warrant.
27. Permission is granted to the FVRD to include the Report in the online FVRD geohazard report library (as background information, not for other parties to rely).

## G. Qualified Professional (QP)

### Prepared by: (QP of Record)

Name \_\_\_\_\_

Designation                      P. Eng.                      P. Geo.                      P.L. Eng.                      P.L. Geo.

### Professional Seal, Signature and Date:

I am a Qualified Professional as defined in the Engineers and Geoscientists BC Guidelines, and I fulfill the education, training and experience requirements as outlined in the Engineers and Geoscientists BC Guidelines.

I have signed, sealed, dated and thereby certify, this Assurance Statement and the attached report.

### Reviewed by:

Name \_\_\_\_\_

Designation                      P.Eng.                      P. Geo.

The Report has received appropriate technical review which is consistent with both the Engineers and Geoscientist BC Professional Practice Guidelines and Quality Management Guidelines. The name of the reviewer is noted in the Report above.

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## H. Geohazard Summary Table

The geohazard report and/or any supporting reports addresses the following hazard types.

Geohazard Type #1		Geohazard Type #2	
Annual Return Frequency (Unmitigated)		Annual Return Frequency (Unmitigated)	
Acceptability Threshold Classification		Acceptability Threshold Classification	
MITIGATION (if necessary)			
Proposed Mitigation Measures		Proposed Mitigation Measures	
Yes		Yes	
No		No	
Annual Return Frequency (Mitigated)		Annual Return Frequency (Mitigated)	
Acceptability Threshold Classification		Acceptability Threshold Classification	
Comments		Comments	
SUPPORTING REPORT			
Was this report prepared by others?		Was this report prepared by others?	
Yes		Yes	
No		No	
If yes, list report name, date and author.		If yes, list report name, date and author.	

Geohazard Type #3		Geohazard Type #4	
Annual Return Frequency (Unmitigated)		Annual Return Frequency (Unmitigated)	
Acceptability Threshold Classification		Acceptability Threshold Classification	
MITIGATION (if necessary)			
Proposed Mitigation Measures		Proposed Mitigation Measures	
Yes		Yes	
No		No	
Annual Return Frequency (Mitigated)		Annual Return Frequency (Mitigated)	
Acceptability Threshold Classification		Acceptability Threshold Classification	
Comments		Comments	
SUPPORTING REPORT			
Was this report prepared by others?		Was this report prepared by others?	
Yes		Yes	
No		No	
If yes, list report name, date and author.		If yes, list report name, date and author.	



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Indicate which hazards were **NOT** reviewed:

Chilliwack River Valley Erosion or Avulsion  
Debris Flow and Debris Torrent  
Debris Flood  
Fraser River & tributaries flooding  
Mountain Stream Erosion or Avulsion  
Major Catastrophic Landslide

Seismic Effects/Liquefaction  
Rockfall - Small Scale Detachment  
Slope Stability  
Small Scale Localized Landslide  
Snow Avalanche  
Tsunami

Hazard Acceptability Thresholds Classification, as per Hazard Acceptability Thresholds for Development Approvals by Local Government dated November 1993 by Dr. Peter Cave.

- 1 Approval without conditions relating to hazards.
- 2 Approval, without siting conditions or protective works conditions, but with a covenant including "save harmless" conditions.
- 3 Approval, but with siting requirements to avoid the hazard, or with requirements for protective works to mitigate the hazard.
- 4 Approval as (3) above, but with a covenant including "save harmless" conditions as well as siting conditions, protective works or both.
- 5 Not approvable.

## Additional Comments