

Floodplain Report Guide

This document is intended to provide guidance for engineered reports prepared in accordance with the Flood Hazard Land Use Management Bylaw No. 890 and the [Flood Hazard Area Land Use Management Guidelines](#). The Comox Valley Regional District (CVRD) as a local government has the ability to designate floodplains, require a professional report in support of proposals to build within floodplains, and approve or deny exemptions to the Flood Hazard Land Use Management Bylaw No. 890 per Section 524 of the *Local Government Act*.

When writing an engineered floodplain report, please ensure that all the information below is explicitly referenced.

Summary

Report must include:

- Summary of proposed development.
- Description of the existing state of the property/property characteristics.
- Confirmation that the report complies with:
 - CVRD Flood Hazard Land Use Management Bylaw No. 890
 - Provincial [Flood Hazard Area Land Use Management Guidelines](#)
 - EGBC Professional Practice Guidelines – [Natural Hazards: Legislated Flood Assessments in a Changing Climate in BC](#)
- As statement that the report is in support of an application for a site-specific exemption.
- Confirmation that the land may be “used safely for the intended purpose”.

Flood Construction Level

Report must include

- Reference to the transect FCLs from the 2021 Designated Floodplain Mapping.
- If not meeting mapped FCL’s, must prescribe the site-specific 2100-year FCL per the Provincial Guidelines, as well as all figures used in this calculation (usually shown in a table).
 - If using the **combined method**, this will include the higher high water, large tide (HHWLT), regional adjustment (RA) or uplift, storm surge (SS), wave effect (WE), an accounting of sea level rise (SLR) and freeboard (FB) to account for rounding errors.
 - If using the **probabilistic method**, this will include an accounting of SLR, RA (or uplift), FB to account for rounding errors, and the annual exceedance

probability (AEP) total water level as determined by probabilistic analyses of tides and storm surge, including estimated wave effects.

- Reference to the year the geodetic datum was retrieved (should be 2013).

Floodplain Setback

Report must include

- Reference to the coastal floodplain setback from the 2021 Designated Floodplain Mapping.
- If not meeting the mapped setback, a site-specific setback must be prescribed (per the provincial guidelines) and must be the more restrictive of two measurements. This means both measurements have to be provided:
 - Where the estimated 2100-year future natural boundary (FNB) lies, plus a 15 metre setback to the FNB.
 - Landward of the location where the natural ground elevation contour is equivalent to the Year 2100 FCL
- A lesser recommended setback (which the setback exemption would be applying for).
- Confirmation (per provincial guidelines) of the existence of a “valid hardship” in order to recommend a lesser setback
 - only recognized where the physical characteristics of the lot are such that development proposals consistent with the current land use zoning cannot occur under the requirements of this Bylaw.
 - The economic circumstances or design and siting preferences of the applicant shall not be considered as grounds for hardship.
- Confirmation (per Bylaw No. 890) that the siting of the proposed development represents the minimum variation from the 2021 Designated Floodplain Mapping coastal setback, represents no further contravention of the mapped setback, and rationale for siting location given:
 - The existing site characteristics, location of the existing infrastructure (if any), and intended use of the land
 - Specifically without regard to the economic circumstances or siting preference of the applicant.

Mitigation Measures

Report must include:

- Any mitigation measures needed for the land to be “safe for its intended use”.
- If there is a reference to level of risk and it is not good (high, very high, unacceptable, intolerable, etc.), there needs to be a discussion about/reference to how the mitigation measures will bring the level of risk down to an acceptable or tolerable level.
- Confirmation that any structural support and landfill installed will not adversely impact

adjacent properties by increasing surface water elevation or directing flows toward those properties.

- Confirmation that any structural support and landfill will not modify site grading or natural drainage in a manner that interferes with overland flow paths or if modifications will occur, report recommends conditions to mitigate these impacts.
- The requirement to register the report on the property's land title through a restrictive covenant as outlined in Section 219 of the Land Title Act.

Appendices

- A site plan must be included that shows the present natural boundary, proposed building location, FCL and floodplain setback according to the 2021 Designated Floodplain Mapping and proposed floodplain setback and/or FCL.
- Flood Assurance Statement that is properly filled out (list of check boxes), including the box indicating that a registered covenant is required.

What We Do Not Want To See:

- Claims of sterilization. Because there are uses permitted in all zones that do not require a structure, there are uses that can be accomplished safely within the floodplain. As such, it is not possible for a property to be sterilized.