

REGIONAL DISTRICT OF COMOX-STRATHCONA

BYLAW NO. 2782

A bylaw to regulate the siting and construction of buildings and structures in floodplains and near watercourses in the Regional District of Comox-Strathcona with the exception of Electoral Area 'K' and portions of 'G' as noted in the Bylaw.

PART A TITLE

- 1. This Bylaw may be cited for all purposes as Bylaw No. 2782 being the **"Floodplain Management Bylaw, 2005"**.

PART B APPLICATION

- 1. This bylaw shall be applicable to all electoral areas within the Regional District of Comox-Strathcona with the exception of:
 - a) Electoral Area 'K'; and
 - b) Any portion of Electoral Area 'G' not affected by Bylaw No. 1155, being the "Electoral Area 'G' Zoning Bylaw, 1990".
- 2. The following schedules are attached to and form an integral part of this bylaw.
 - a) Schedule "A" - Floodplain Management Regulations;
 - b) Schedule "B" - Floodplain Mapping for the Courtenay, Puntledge and Tsolum Rivers;
 - c) Schedule "C" - Floodplain Mapping for the Oyster River; and
 - d) Schedule "D" - Floodplain Mapping for the Salmon and White Rivers.

PART C ENACTMENT AND REPEAL

- 1. Bylaw No. 1836 being the "Floodplain Management Bylaw, 1997" and all amendments thereto, is hereby repealed.

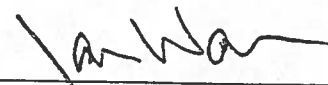


[Signature]
 I, James Warren, manager of legislative services for the Comox Valley Regional District, certify this document a true and correct copy of the original. March 20, 2009.

READ A FIRST AND SECOND TIME THIS	30TH	DAY OF	MAY	2005.
READ A THIRD TIME THIS	30TH	DAY OF	MAY	2005.
ADOPTED THIS	27TH	DAY OF	JUNE	2005.



Chair



Manager of Legislative Services

I hereby certify this to be a true and correct copy of Bylaw No. 2782 being the "FLOODPLAIN MANAGEMENT BYLAW, 2005", as adopted by the Board of the Regional District of Comox-Strathcona on the 27th day of June, 2005.



Manager of Legislative Services



REGIONAL DISTRICT of

Comox-Strathcona

Schedule "A"

Bylaw No. 2782

Floodplain Management Bylaw, 2005

PART 100

ADMINISTRATION

101 Other Legislation

- 1) Nothing contained in this Bylaw shall relieve any person from the responsibility to ascertain whether their proposed development complies with all other applicable enactments.

102 General Prohibitions

- 1) No building or structure shall be constructed, reconstructed, altered, moved or extended by the owner, occupier or other person so that it contravenes the requirements of this Bylaw.

103 Enforcement

- 1) A Bylaw Enforcement Officer may administer this Bylaw and may enter at all reasonable times on any property to which this Bylaw applies to inspect and determine whether the regulations, prohibitions and requirements of this bylaw are being met.
- 2) A Bylaw Enforcement Officer who observes a contravention of this Bylaw may issue applicable notices and orders to any owner, occupier or other person who appears to have committed or allowed the contravention.

104 Obstruction

No person shall prevent or obstruct a Bylaw Enforcement Officer from performing his or her duties under this Bylaw.

105 Offence and Penalty

- 1) A person who contravenes a regulation or requirement of this Bylaw, commits an offence, is punishable on summary conviction and is liable to a fine not exceeding the maximum prescribed by law and not less than Five Hundred Dollars (\$500), plus the costs of prosecution.
- 2) Each day during which a violation is continued shall be deemed to constitute a new and separate offence.

106 Severability

If any section, subsection, sentence, clause or phrase of this Bylaw is for any reason held to be invalid by the decision of any Court of competent jurisdiction, the invalid portion shall be severed and the decision that it is invalid shall not affect the validity of the remainder.

107 No Representation

By the enactment, administration or enforcement of this Bylaw, the Regional District of Comox-Strathcona does not represent to any person that any building or structure, including a mobile home, located, constructed or used in accordance with the regulations of this Bylaw or in accordance with any advice, information, direction or guidance provided by the Regional District in the course of the administration of this Bylaw will not be damaged by flooding.

PART 200

INTERPRETATION

201 Definitions

In this bylaw, the words in the left hand column have the meaning set out in the right hand column opposite them, as follows:

<i>ALLUVIAL FAN</i>	the alluvial deposit of a stream where it issues from a steep mountain valley or gorge upon a plain or at the junction of a tributary stream with the main stream.
<i>BUILDING</i>	a structure used or intended for supporting or sheltering any use, or occupancy.
<i>BYLAW ENFORCEMENT OFFICER</i>	persons employed or appointed as such from time to time by the Regional Board.
<i>DESIGNATED FLOOD</i>	a flood which may occur in any given year, of such magnitude as to equal a flood having a 200-year recurrence interval, based on a frequency analysis of unregulated historic flood records or by regional analysis where inadequate stream flow data is available. Where the flow of a large watercourse is controlled by a major dam, the designated flood shall be set on a site specific basis.
<i>DESIGNATED FLOOD LEVEL</i>	the observed or calculated elevation for the designated flood, which is used in the calculation of the flood construction level. (See Diagram 1)
<i>DWELLING UNIT</i>	a self-contained unit consisting of one or more rooms designed, occupied, or intended for occupancy, as a separate household with sleeping and sanitary facilities and not more than one set of kitchen and cooking facilities, but specifically excluding recreational vehicles.
<i>FARM BUILDING</i>	a building or part thereof which is associated with and located on land devoted to the practice of farming, and used essentially for the housing of equipment or livestock, or the production, storage, processing, marketing and selling of agricultural and horticultural produce or feeds.
<i>FLOOD CONSTRUCTION LEVEL</i> or <i>FLOOD LEVEL</i>	The Designated Flood Level plus the allowance for freeboard and is used to establish the elevation of the underside of a wooden floor system or top of concrete slab for habitable buildings. In the case of a manufactured home, the ground level or top of concrete or asphalt pad on which it is located shall be equal to or higher

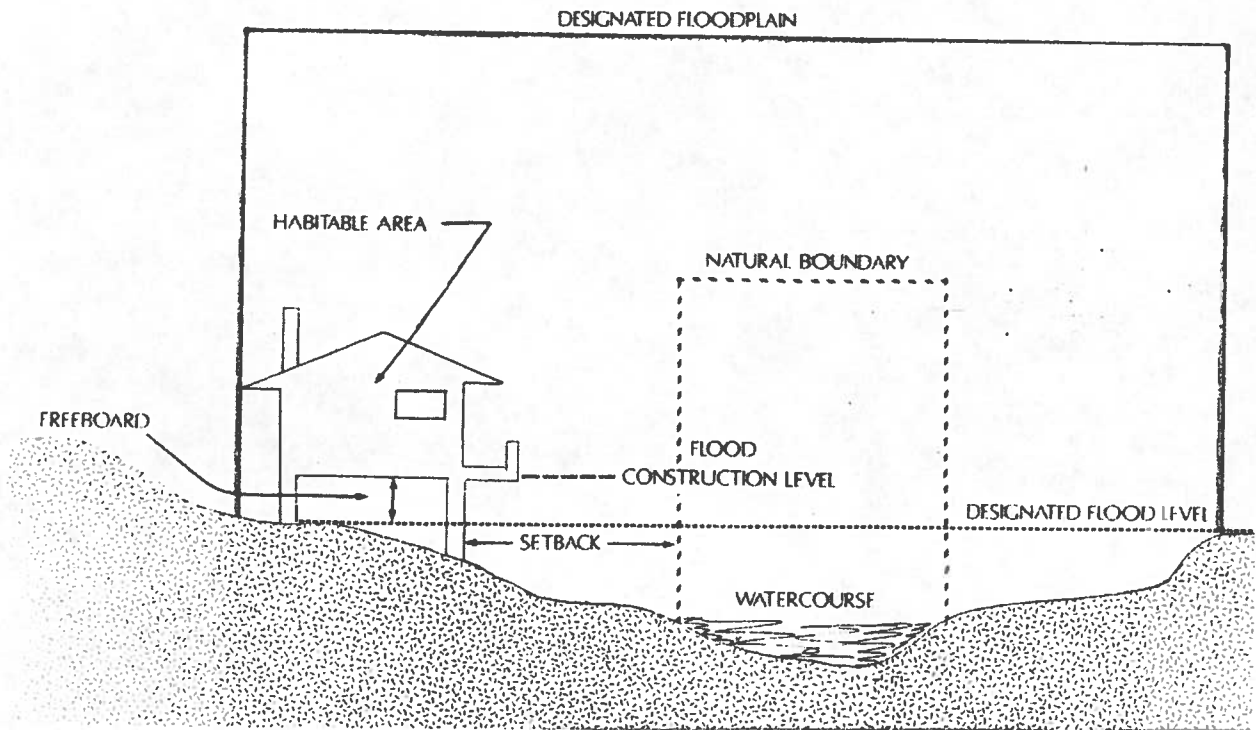
than the above described elevation. It also establishes the minimum crest level of a Standard Dike. Where the designated flood level cannot be determined or where there are overriding factors, an assessed height above the natural boundary of the water body, or above the natural ground elevation may be used. (See Diagram 1)

FLOODPLAIN	A lowland area, whether diked, floodproofed, or not which, by reasons of land elevation, is susceptible to flooding' from an adjoining watercourse, ocean, lake or other body of water and for administration purposes is taken to be that area submerged by the Designated Flood plus freeboard. (See Diagram 1)
FLOODPLAIN SETBACK	the required minimum distance from the natural boundary of a watercourse, lake, or other body of water to any landfill or structural support required to elevate a floor system or pad above the flood construction level, so as to maintain a floodway and allow for potential land erosion.
FREEBOARD	a vertical distance added to a designated flood level, used to establish a flood construction level. (See Diagram 1)
GEODETTIC SURVEY OF CANADA (G.S.C.) DATUM	a vertical distance above Canadian Geodetic Datum (mean sea level as determined by the Canadian Hydrographic Service).
HABITABLE AREA	any room or space within a building or structure that is or can be used for human occupancy, commercial sales, or storage of goods, possessions or equipment (including furnaces) which would be subject to damage if flooded. (See Diagram 1)
HIGH WATER MARK	See NATURAL BOUNDARY.
LANDFILL	sand, gravel, earth, rock or any combination thereof placed or deposited by man to raise the level of the ground, but does not include building or construction debris.
MOBILE HOME PAD	See "PAD".
NATURAL BOUNDARY	the visible high watermark of any lake, river, stream, or other body of water where the presence and action of the water are so common and usual and so long continued in all ordinary years as to mark upon the soil of the bed of the body of water a character distinct from that of its banks, in vegetation, as well as in the nature of the soils itself, as defined in Section 1 of the <i>Land Act</i> . For

	coastal areas, the natural boundary includes the natural limit of permanent terrestrial vegetation. In addition, the natural boundary includes the best estimate of the edge of dormant or old side channels and marsh areas. (See Diagram 1)
NATURAL GROUND ELEVATION	the undisturbed ground elevation prior to site preparation.
PAD	a paved surface on which blocks, posts, runners or strip footings are placed for the purpose of supporting a mobile home or unit, or a concrete pad for supporting a habitable area.
PROFESSIONAL ENGINEER	a person who is registered or licensed under the provisions of the <i>Engineers and Geoscientists Act</i> , RSBC 1996, chapter 116.
REGIONAL BOARD	the elected body of the Regional District.
REGIONAL DISTRICT	the Regional District of Comox-Strathcona.
SETBACK	the required minimum horizontal distance measured from the respective lot line or other feature as may be identified to any building or structure or part thereof. (See Diagram 1)
SHORELINE PROTECTION DEVICE	breakwaters, seawalls, bulkheads, riprap, deposition of materials such as stone and concrete rubble, bluff stabilization projects, and similar measures employed to protect property from the sea and watercourses.
STANDARD DIKE	a dike built to a minimum crest elevation equal to the flood construction level and meeting standards of design and construction approved by the Inspector of Dikes and maintained by a diking authority under the Dike Maintenance Act or successor legislation.
STRUCTURE	anything that is constructed or erected, and includes decks, swimming pools, mobile home space, and major improvements accessory to the principal use of land, but specifically excludes retaining walls under 2.0 metres (6.6 feet) in height as well as landscaping, paving improvements, signs and fences.
TOP OF BANK	the point at which the upward ground level becomes less than one (1.0) vertical to four (4.0) horizontal, and refers to the crest of the bank or bluff where the slope clearly changes into the natural upland bench; or as otherwise designated from time to time by the authority having jurisdiction.
TSUNAMI	a sea wave generated by tectonic or volcanic activity.

- WATERCOURSE** any natural or man-made depression with well-defined banks and a bed 0.6 metres (2.0 feet) or more below the surrounding land serving to give direction to a current of water at least six months of the year and having a drainage area of 2 square kilometres (0.8 square miles) or more upstream of the point of consideration. (See Diagram 1)
- WETLAND** land seasonally or permanently covered by water and dominated by water-tolerant vegetation. Wetlands include swamps, marshes, bogs and fens but not lands periodically flooded for agricultural purposes.

Diagram 1



Note: This diagram is provided for illustrative purposes for the terms shown herein and defined in Part 200 of this bylaw.

PART 300

FLOODPLAIN REGULATIONS

301 Floodplain Designation

- 1) The following land is designated as floodplain:
 - a) Lands shown as floodplain on the following:
 - i) Schedule "B" - Floodplain Mapping for the Courtenay, Puntledge and Tsolum Rivers;
 - ii) Schedule "C" - Floodplain Mapping for the Oyster River; and
 - iii) Schedule "D" - Floodplain Mapping for the Salmon and White Rivers.
 - b) Land lower than the flood construction levels specified in Section 302;
 - c) Land within the floodplain setbacks specified in Section 303.

302 Flood Construction Levels

- 1) Where Floodplain Mapping is available, the flood construction level for a specific property shall be determined by interpolation from the flood construction levels shown on the following:
 - a) Schedule "B" - Floodplain Mapping for the Courtenay, Puntledge and Tsolum Rivers;
 - b) Schedule "C" - Floodplain Mapping for the Oyster River; and
 - c) Schedule "D" - Floodplain Mapping for the Salmon and White Rivers.
- 2) Where Floodplain Mapping is NOT available, the following elevations are specified as flood construction levels:
 - a) 137.5 metres (451.1 feet) G.S.C. datum surrounding Comox Lake;
 - b) 181.0 metres (593.8 feet) G.S.C. datum surrounding Campbell Lake;
 - c) 224.6 metres (736.9 feet) G.S.C. datum surrounding Upper Campbell and Buttle Lakes;
 - d) 3.0 metres (9.8 feet) above the natural boundary of Cowie and Mohun Creeks and the Browns, Courtenay, Cruickshank, Gold, Heber, Oyster, Puntledge, Quinsam, Salmon, Trent, Tsable, Tsolum and White Rivers, and any other watercourse where the designated flood, as determined by a suitably qualified professional engineer, is greater than 80 cubic metres per second;
 - e) 3.0 metres (9.8 feet) above the natural boundary of any lake over 15 kilometres at its greatest horizontal distance;
 - f) 1.5 metres (4.9 feet) above the natural boundary of any other watercourse;
 - g) 1.5 metres (4.9 feet) above the natural boundary of the sea, any lake, wetland, or pond.

- 3) On mainland coastal inlets and alluvial fans the flood construction level will be determined by a site specific assessment by a suitably qualified professional engineer pursuant to the provisions of Section 695 of the *Local Government Act* and Section 56 of the *Community Charter*.
- 4) Where more than one flood construction level is applicable, the higher elevation shall be the flood construction level.

303 Floodplain Setbacks

- 1) The following distances are specified as floodplain setbacks:
 - a) 60.0 metres (196.9 feet) from the natural boundary of Oyster River;
 - b) 30.0 metres (98.4 feet) from the natural boundary of Cowie and Mohun Creeks, and the Browns, Courtenay, Cruickshank, Gold, Heber, Puntledge, Quinsam, Salmon, Trent, Tsable, Tsolum and White Rivers, and any other watercourse where the designated flood, as determined by a suitably qualified professional engineer, is greater than 80 cubic metres per second;
 - c) 15.0 metres (49.2 feet) from the natural boundary of any other watercourse;
 - d) 15.0 metres (49.2 feet) from the natural boundary of the sea, any lake, wetland, or pond;
 - e) 7.5 metres (24.6 feet) from any dike right-of-way, or structure for flood protection or seepage control.
- 2) On mainland coastal inlets and alluvial fans the floodplain setback will be determined by a site specific assessment by a suitably qualified professional engineer pursuant to the provisions of Section 695 of the *Local Government Act*, and by provincial and federal agencies having jurisdiction for protection of fish and wildlife habitat.
- 3) Where more than one floodplain setback is applicable, the greater of them shall be the floodplain setback.

304 Floodplain Construction Requirements

- 1) A person must construct the underside of any floor system, or the top of any pad supporting any space or room, including a mobile home, that is used for dwelling purposes, business, or the storage of goods that are susceptible to damage by floodwater above the specified flood construction levels of Section 302.
- 2) A person must site a building or structure according to the floodplain setbacks specified in Section 303.
- 3) A person may use structural support or compacted landfill or a combination of both to elevate the underside of the floor system or the top of the pad above the flood construction levels specified in Section 302. The structural support and compacted landfill shall be protected against scour and erosion from flood flows, wave action, ice and other debris. The structural support and compacted landfill shall be installed and compacted under the direction of a professional geotechnical engineer.
- 4) A person must not extend any compacted landfill required to support a floor system or pad within any floodplain setbacks specified in Section 303.

- 5) A Bylaw Enforcement Officer may require that a British Columbia Land Surveyor's certificate be obtained to verify compliance with the flood construction levels of Section 302 and floodplain setbacks of Sections 303. The cost of verification shall be assumed by the landowner.
- 6) Where it is uncertain whether a watercourse has a designated flood greater than 80 cubic metres per second, the Regional District may require the landowner to obtain and pay for a report from a professional engineer or geoscientist experienced in geotechnical engineering to establish the rate of flow.