

320. **FLOOD CONTROL REQUIREMENTS**

1. **Definitions**

For the purpose of this section the following definitions shall apply:

Alluvial Fan means 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.

Designated Flood means 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 there is inadequate stream flow data 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.

Designated Flood Level means the observed or calculated elevation for the Designated Flood and is used in the calculation of the Flood Construction Level.

Flood Construction Level means 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 a concrete slab for habitable buildings. In the case of a mobile home, the ground level or top of a concrete or asphalt pad, on which it is located shall be no lower than the above-described elevation. It also establishes the minimum crest level of a Standard Dyke. Where the Designated Flood Level cannot be determined or where there are overriding factors, an assessed height above the natural boundary of the waterbody or above the natural ground elevation may be used.

Floodproofing means the alteration of land or structures either physically or in use to reduce or eliminate flood damage and includes the use of elevation and/or building setbacks from water bodies to maintain a floodway and to allow for potential erosion.

Freeboard means a vertical distance added to the Designated Flood Level and is used to establish the Flood Construction Level.

Habitable Area means any room or space within a building or structure which 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.

Mobile Home means a structure manufactured as a unit, intended to be occupied in a place other than at its manufacturer, and designed as a dwelling unit, and specifically excludes recreation vehicles.

Natural Boundary means 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 lake, river, stream or other body of water a character distinct from that of the banks thereof, in respect to vegetation, as well as in respect to the nature of the soil itself (Land Act, Section 1). In addition, the natural boundary includes the best estimate of the edge of dormant or old side channels and marsh areas.

Pad means a paved surface on which blocks, posts, runners or strip footings are placed for the purpose of supporting a mobile home or unit.

Setback means a withdrawal of a building or landfill from the natural boundary or other reference line to maintain a floodway and to allow for potential land erosion.

Watercourse means any natural or man-made depression with well defined banks and a bed **zero point six (0.6) metres or more below the surrounding land** serving to give direction to a current of water at least **six (6) months of the year** or having a drainage area of **two (2) square kilometres or more** upstream of the point of consideration, or as designated by the Minister of Environment and Parks, or a Designated Official.

Pursuant to Section 969 of the Municipal Act, areas of the District of Sechelt hereby designated as floodplain are as follows:

1. The alluvial fans of Chapman Creek, Wilson Creek, and Gray Creek, Angus Creek, and Burnett Creek as shown on the attached Schedule "B" of this Bylaw.
2. The alluvial fan of Irvine Creek, the mapping of which was not available at the time of adoption of this Bylaw.
3. Designation of all other floodplain areas of the District of Sechelt are described by the following provisions (except where the Flood Construction Level has been determined in response to a site-specific situation) until such time as floodplain mapping is prepared.

2. **Setback Requirements**

Notwithstanding any other provisions of this Bylaw, no building, mobile home or unit, modular home or structure or any part thereof shall be constructed, reconstructed, moved, extended or located:

- i) within **seven point five (7.5) metres of the natural boundary of a lake, swamp or pond;**
- ii) within **fifteen (15) metres of the natural boundary of the sea;**
- iii) within **thirty (30) metres of the natural boundary of Chapman Creek and Gray Creek, and within fifteen (15) metres of the natural boundary of any other watercourse.**

3. **Elevation Requirements**

a) Notwithstanding any other provisions of this Bylaw, no building, mobile home or unit, modular home or structure or any part thereof shall be constructed, reconstructed, moved, extended or located with the underside of a wooden floor system or top of a concrete slab of any area used for habitation, business, or storage of goods damageable by floodwaters, or in the case of a mobile home or unit the ground level or top of the concrete or asphalt pad on which it is located:

- i) lower than the Flood Construction Level for any watercourse or the sea where it has been determined to the satisfaction of the Ministry of Environment and Parks, or where it has not been determined or a site-specific Flood Construction Level has not been determined;
- ii) nor lower than **three (3.0) metres above the natural boundary of Chapman Creek and Gray Creek;**
- iii) nor lower than **one point five (1.5) metres above the natural boundary of the sea, a lake, swamp or pond;**
- iv) nor lower than **one point (1.5) metres above the natural boundary of any other watercourse;**
- v) nor in any case lower than **zero point six (0.6) metres above the natural ground elevation taken at any point on the perimeter of the building** for locations on the alluvial fans of Chapman Creek, Wilson Creek, Gray Creek, Angus Creek, and Burnett Creek as shown on the attached Schedule "B", and the alluvial fan of Irvine

Creek, the mapping of which was not available at the time of adoption of this Bylaw.

- b) The required elevation may be achieved by structural elevation of the said habitable, business, or storage area or by adequately compacted landfill on which any building is to be constructed or mobile home or unit located, or by a combination of both structural elevation and landfill. No area below the required elevation shall be used for the installation of furnaces or other fixed equipment susceptible to damage by floodwater.
- c) Where landfill is used to achieve the required elevation stated in clause 3.(a) above, no portion of the landfill slope shall be closer than the distances in clause 2 from the natural boundary, and the face of the landfill slope shall be adequately protected against erosion from flood flows, wave action or other debris.
- d) Foundations of construction in alluvial fan areas shall be designed by a Professional Engineer to ensure that structures are anchored to minimize the impact of flood, sediment and erosion damage; footings are extended below scour depth, or fill materials are armoured where elevation is achieved by fill, to protect against scour, erosion and flood flows.

4. **Exemptions**

Clause 3 shall not apply to:

- a) A renovation of an existing building or structure that **does not** involve an addition thereto; or an addition to a building or structure that would increase the size of the building or structure by **less than twenty-five (25%) percent of the floor area** existing as of April 27th, 1976.
- b) That portion of a building or structure to be used as a carport or garage.
- c) On-loading and off-loading facilities associated with water-oriented industry. Main electrical switchgear shall be placed above the Flood Construction Level.

5. **Purposes of Conditions**

The purpose of these conditions is to reduce the risk of injury, loss of life, and property damage due to flooding and erosion. However, the District of Sechelt does not represent to the owner or any other person that any building constructed or mobile home or unit located in accordance with the following conditions will not be damaged by flooding or erosion.

6. **Relaxation**

The Ministry of Environment, Lands and Parks may exempt developments from the requirements of Section 320, except for the 15.0 metre setback from the natural boundary of the ocean from S.I.G.D. #2 to Shorncliffe Avenue.