

LIST OF FLOODPLAIN TEXT AMENDMENTS

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#	BYLAW NO.	ADOPTION DATE	CONTENT	APPLICANT
1	1370	26/01/06	Addition of Section 6A regarding Non-Standard Flood Areas	
2	1420	17/07/07	Various amendments to Section 3 and Sections 5.1.8, 5.1.9, 5.1.10, 5.1.11, 6.1.3	
3	1771	23/06/16	Revision of wording: Removal of the word "adjacent" from sections, 2.4, 5.1.2, 5.1.3, 5.1.4, 5.1.5, 5.1.6, 5.1.7, 5.1.8, 5.1.9, 5.1.10, and 5.1.11 of the bylaw. Replaced by wording that clarifies the location of developments governed by flood construction levels and the location from which setbacks and elevations will be measured from.	



Regional District of Bulkley-Nechako

Floodplain Management Bylaw No. 1300, 2004

Consolidated **for convenience only**; June 23, 2016

This document includes the text of the floodplain bylaw.

N.B. Floodplain maps (Schedules A, B and C) can be viewed at the Regional District office, 492 Yellowhead Highway 16, Burns Lake, B.C.

**REGIONAL DISTRICT OF BULKLEY-NECHAKO
FLOODPLAIN MANAGEMENT BYLAW NO. 1300, 2004**

**A Bylaw to establish flood plain management procedures and regulations for
buildings and structures in flood prone areas**

WHEREAS the Local Government Act authorizes the Regional District of Bulkley-Nechako to enact a flood plain management bylaw where it considers flooding may occur on land;

AND WHEREAS the Regional District of Bulkley-Nechako is in possession of Provincial guidelines, maps and other documents that identify areas, which may be subject to flooding;

AND WHEREAS the Regional District of Bulkley-Nechako has had flood plain management regulations in place for flood prone lands since 1970;

AND WHEREAS there is a need to review and update these regulations to reflect current legislation and Provincial guidelines;

NOW THEREFORE THE BOARD OF THE REGIONAL DISTRICT OF BULKLEY-NECHAKO, in open meeting assembled, enacts as follows:

1. Title

This Bylaw may be cited as the “Regional District of Bulkley-Nechako Flood Plain Management Bylaw No. 1300, 2004.”

2. Administration

2.1. The Building Inspector or other person appointed by the Board of Directors will administer this Bylaw.

2.2. This Bylaw shall apply to all of Electoral Areas A, B, C, D, E, F and G of the Regional District of Bulkley-Nechako.



2.3. This Bylaw includes as Schedule 'A' the following flood plain maps produced by the Ministry of Water, Land and Air Protection:

- 2.3.1. Bulkley & Telkwa Rivers – Smithers to Telkwa, Drawing No. 84-68- 1, Sheets 1 through 8;
- 2.3.2. Bulkley River – Quick to Houston, Drawing No. 96-10-1, Sheets 1 through 6;
- 2.3.3. Bulkley River – Quick Area, Drawing No. 86-23-1, Sheets 1 through 4; and
- 2.3.4. Stuart River and Lake – at Fort St. James, Drawing No. 89-42-1, Sheets 1 through 7;

which are attached hereto and form part of this Bylaw.

2.4. Setbacks and elevations shall be measured from the point of the natural boundary of the applicable watercourse, lake, marsh or pond that is closest to the subject building or structure.

3. Interpretation

For the purposes of this Bylaw, the following definitions 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.

BUILDING means any structure used or intended for supporting or sheltering any use or occupancy.

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 manufactured 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 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.

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) that would be subject to damage if flooded.

HEAVY INDUSTRY includes such uses as manufacturing or processing of wood and paper products, metal, heavy electrical, non-metallic mineral products, petroleum and coal products, industrial chemicals and by-products, and allied products.

LIGHT OR SERVICE INDUSTRY includes such uses as assembly, fabricating, light manufacturing, warehousing, wholesaling and food processing.

MANUFACTURED 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 includes mobile homes, 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. 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 manufactured home or unit.

SETBACK means the required minimum distance, measured horizontally, that a structural support or landfill, required to elevate a floor system or Pad above the Designated Flood Level, must be separated from the Natural Boundary to maintain a floodway and to allow for potential erosion.

STANDARD DIKES means those built to a minimum crest elevation equal to the Flood Construction Level and meeting standards of design and construction approved by the Ministry of Water, Land and Air Protection and maintained by an ongoing authority such as a local government body.

STRUCTURE means a construction or portion thereof of any kind, whether fixed to, supported by or sunk into the land or water, specifically including retaining structures of any size directly connected to a building or other structure but specifically excluding all other retaining structures landscaping, fences and paving.

WATERCOURSE means any natural or man made depression with well defined banks and a bed 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 2 square kilometres or more upstream of the point of consideration.

4. Floodplain Designation

The following lands are designated as floodplain:

- 4.1. All lands lying within the Designated Floodplain Limit as shown on Schedule 'A', attached to and forming part of this Bylaw.
- 4.2. All other lands which are below the Flood Construction Levels specified in Section 5.1 of this Bylaw or which are within the Floodplain Setbacks specified in Section 5.2 of this Bylaw.



5. Floodplain Specifications

5.1. Flood Construction Levels

The following elevations are specified as Flood Construction Levels, except where more than one Flood Construction Level is applicable, the higher elevation shall be the specified Flood Construction Level:

5.1.1. Within those areas designated in Section 4.1 of this Bylaw, the specified Flood Construction Levels shall be interpolated from the “200 year frequency Flood Level” identified on Schedule ‘A’ attached to this Bylaw;

or, where floodplain mapping is not available,

5.1.2. 713.63 metres Geodetic Survey of Canada datum for land within a distance of 100 metres of Babine Lake;

5.1.3. 765.70 metres Geodetic Survey of Canada datum for land within a distance of 100 metres of Cluculz Lake;

5.1.4. 3.96 on Water Survey of Canada gauge #08JB011 for land within a distance of 100 metres of Francois Lake;

5.1.5. 671.80 metres Geodetic Survey of Canada datum for land within a distance of 100 metres of Fraser Lake;

5.1.6. 859.50 metres Geodetic Survey of Canada datum for land within a distance of 100 metres of the Nechako Reservoir (includes Knewstubb, Natalkuz, Ootsa, Tahtsa, Tetachuk and Whitesail Lakes);

5.1.7. 683.50 metres Geodetic Survey of Canada datum for land within a distance of 100 metres of Stuart Lake;

5.1.8. 4.0 metres above the Natural Boundary of the Nechako River (below the Nautley River), for land within a distance of 200 metres of the Nechako River below the Nautley River;

5.1.9. 3.0 metres above the Natural Boundary of Cheslatta/Murray, Chuchi, Cunningham, Eutsuk, Germansen, Inzana, Morice, Murray, Nanika, Pinchi, Takla, Taltapin, Tchentlo, Tchesinkut, Tezzeron, Tochcha,



Trembleur, Troitsa, and Tsayta Lakes, for land within a distance of 200 metres of these lakes;

5.1.10. 3.0 metres above the Natural Boundary of the Babine River, Buck Creek, Bulkley River, Cheslatta River, Chilako River, Cluculz Creek (below Cluculz Lake), Driftwood River, Endako River, Fleming Creek (below Tidesley Creek), Fulton River, Gaffney Creek, Hutudatehl Creek, Inzana Creek (below Inzana Lake), Kazchek Creek, Klawli River, Kotsine River, Kuzkwa Creek, Kwanika Creek, Manson River (below Tsayta Lake), Middle River, Morice River, Nation River (below Tsayta Lake), Nautley River, Nechako River (above Nautley River), Necoslie River (within Coast Land District), Nilkitkwa River, Omineca River, Parrott Creek, Philip Creek, Rainbow Creek, Silver Creek (below Kenny Creek), Sinkut River (below Sinkut Lake), Sakeniche River, Sowchea Creek (below Marie Creek), Stellako River, Stoney Creek (below Tachick Lake), Stuart River, Sutherland River (below Gravel Creek), Sylvester Creek, Tachie River, Tchesinkut Creek, Telkwa River, Tezzeron Creek, Tsilcoh River, Valleau Creek and Skeena River, for land within a distance of 200 metres of these rivers

5.1.11. 1.5 metres above the Natural Boundary of any other watercourse, lake, marsh or pond, where that land is within a distance of 100 metres of these watercourses, lakes, marshes or ponds.

5.2. Floodplain Setbacks

The following distances are specified as Floodplain Setbacks, except where more than one Floodplain Setback is applicable, the greater distance shall be the Floodplain Setback:

5.2.1. 30.0 metres from the Natural Boundary of the Babine River, Buck Creek, Bulkley River, Cheslatta River, Chilako river, Cluculz Creek (below Cluculz Lake), Driftwood River, Endako River, Fleming Creek (below Tidesley Creek), Fulton River, Gaffney Creek, Hutudatehl Creek, Inzana Creek (below Inzana Lake), Kazchek Creek, Klawli River, Kotsine River, Kuzkwa Creek, Kwanika Creek, Manson River (below Tsayta Lake), Middle River, Morice River, Nation River (below Tsayta Lake), Nautley River, Nechako River (above Nautley River), Necoslie River (within Coast Land District), Nilkitkwa River, Omineca River, Parrott Creek, Philip Creek, Rainbow Creek, Silver Creek (below Kenny Creek), Sinkut River (below Sinkut



Lake), Skaeniche River, Sowchea Creek (below Marie Creek), Stellako River, Stoney Creek (below Tachick Lake), Stuart river, Sutherland River (below Gravel Creek), Sylvester Creek, Tachie River, Tchesinkut Creek, Telkwa River, Tezzeron Creek, Tsilcoh River, Valleau Creek and Skeena River;

- 5.2.2. 15 metres from the Natural Boundary of any other watercourse;
- 5.2.3. 7.5 metres from the 859.5 metres Geodetic survey of Canada datum contour interval surrounding the Nechako Reservoir (including Knewstubb, Natalkuz, Ootsa, Tahtsa, Tetachuk and Whitesail Lakes);
- 5.2.4. 7.5 metres from the Natural Boundary of any other lake, marsh or pond; and
- 5.2.5. 7.5 metres from any dike right of way, or structure for flood protection or seepage control.
- 5.2.6. 45 metres from the Natural Boundary of the Nechako River (below the Nautley River).

6. Floodplain Regulations

6.1. Pursuant to Section 910 (4) of the Local Government Act:

- 6.1.1. No building, manufactured 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 manufactured home or unit the ground level or top of the pad on which it is located, lower than the Flood Construction Level specified in Section 5.1 of this Bylaw.
- 6.1.2. No landfill or structural support required to support a floor system or pad, shall be constructed, reconstructed, moved, extended or located within any Floodplain Setback specified in Section 5.2 of this Bylaw.
- 6.1.3. Unless specifically provided for elsewhere in this bylaw no area below the Flood Construction Level shall be used for the installation of furnaces,



major electrical switchgear, or other fixed equipment susceptible to damage by floodwater.

- 6.2. The required elevation specified in Section 5.1 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 manufactured 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.
- 6.3. Where landfill is used to achieve the required elevation specified in Section 5.1 above, no portion of the landfill slope shall be closer than the setback distances specified in Section 5.2 from the Natural Boundary, or the inboard toe of any structure for flood protection or seepage control, or the inboard side of any dike right of way, and the face of the landfill slope shall be adequately protected against erosion from flood flows, wave action, ice or other debris.
- 6.4. Where a manufactured home or unit is located on, and secured to, a poured-in-place concrete perimeter footing, the Flood Construction Level shall apply to the top of the footing wall.

6A. Non-Standard Flood Areas

Explanatory Note: Non-Standard Flood Areas are areas where standard Flood Plain setbacks and elevations contained elsewhere in this Bylaw may not be adequate to provide the necessary protection against flooding, erosion and/or debris flow. Supplementary regulations are required.

- 6A.1. Non-Standard Flood Areas are identified on Schedules 'B' and 'C' which are attached to and form part of this Bylaw.
- 6A.2. The provisions of the Floodplain Management Bylaw No. 1300 shall apply to development within all Non-Standard Flood Areas.
- 6A.3. Notwithstanding the requirements of Section 5.2 of Bylaw No. 1300 the Floodplain Setback from the natural boundary of any watercourse within the Non-Standard Flood Area identified on Schedule 'B' of this Bylaw shall be 30 metres.



- 6A.4. Buildings and structures, including manufactured homes, located within a Non-Standard Flood Area identified on Schedules 'B' or 'C' shall be constructed or placed such that all habitable areas are elevated a minimum of 1.0 metre above the general elevation of the surrounding ground and placed on a permanent concrete foundation and protected from scour.
- 6A.5. No building or structure, including a manufactured home shall be constructed, structurally altered or placed on a property within a Non-Standard Flood Area identified on Schedules 'B' or 'C' unless and until the Building Inspector has received a report certified by a qualified professional pursuant to Section 56 of the Community Charter. All other provisions of Section 56 of the Community Charter shall also apply.
- 6A.6 The following types of development located within the Non- Standard Flood Area identified on Schedules 'B' or 'C' shall be exempt from the provisions of Section 6A.5 of this bylaw:
- 6A.6.1 the types of development identified in Sections 7.1, 7.4 and 7.10 of Bylaw No. 1300;
 - 6A.6.2 open sided farm buildings, other than dwellings; and
 - 6A.6.3 that portion of a building or structure to be used solely for the parking or storage of vehicles as in a carport or garage or as an entryway provided the building or structure is open sided.

7. General Exemptions

Section 6.1.1 of this Bylaw shall not apply to:

- 7.1. The renovation of an existing building or structure that does not involve an addition thereto;
- 7.2. An addition to a building or structure that would increase the size of the building or structure by less than 25 percent of the finished floor area of the first story existing at the date of adoption of "Regional District of Bulkley-Nechako Zoning Bylaw No. 18, 1970, Amendment Bylaw No. 151, 1977". Such additions must not increase the degree of nonconformity with respect to a flood plain setback required by Section 6.1.2;



- 7.3. That portion of a building or structure to be used solely for the parking or storage of vehicles as in a carport or garage, or as an entryway;
- 7.4. Domestic greenhouses;
- 7.5. Farm buildings other than dwelling units and closed sided livestock housing.
- 7.6. Close sided livestock housing behind Standard Dikes as approved by the Inspector of Dikes and, if not behind a Standard Dike, provided they are located with the underside of the wooden floor system or the top of the pad (or in the case of a manufactured home the top of the pad or the ground surface on which it is located) no lower than 1.0 metres above the natural ground elevation taken at any point on the perimeter of the building;
- 7.7. Light or heavy industrial development including fixed equipment (other than main electrical switchgear) provided it is located with the underside of a wooden floor system or the top of the pad (or in the case of a manufactured home the top of the pad or the ground surface on which it is located) no lower than the Flood Construction Level minus freeboard. Main electrical switchgear shall be no lower than the Flood Construction Level;
- 7.8. Heavy industry behind Standard Dikes;
- 7.9. On loading and off loading facilities associated with water oriented industry and portable sawmills. Main electrical switchgear shall be placed above the Flood Construction Level.
- 7.10. Publicly owned and operated open sided recreation shelters and stands which do not have fixtures which are susceptible to damage by flood waters.

8. Site Specific Exemptions

Application by property owners to the Regional District of Bulkley-Nechako for site specific exemptions to this Bylaw pursuant to Section 910 (5) of the Local Government Act shall be in the form prescribed in the Regional District of Bulkley-Nechako Development Approval Procedure Bylaw.