



The Corporation of the District of North Cowichan

A Bylaw to Establish Standards for Float Homes

Bylaw 3015

[Consolidated and printed by authority of the Corporate Officer under section 139 of the Community Charter. Current to May 20, 2016. Last amended December 16, 2015. Amendments: 3116, 3190, 3216, 3567.]

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WHEREAS the Province of British Columbia has developed certain standards to ensure that there is a level of care and diligence in the design and construction of float homes similar to residential development;

AND WHEREAS there is also a need to set standards for fire protection and sewage disposal of float homes;

AND WHEREAS section 523 of the Municipal Act, RSBC 1996, Chapter 323, empowers council to require unsanitary conditions be remedied;

AND WHEREAS a significant community of people lives on the waters within the Municipality;

NOW THEREFORE the Municipal Council of The Corporation of the District of North Cowichan, in open meeting assembled, ENACTS as follows:

Part 1 – General Provisions

Title

1 This Bylaw may be cited as the “Float Home Standards Bylaw 1999”.

Applicability

2 This Bylaw applies to all areas of land and water within the territorial area of the North Cowichan and, for certainty, extends 304.8 m (1000 ft) beyond the foreshore high water mark.

Definitions

3 In this Bylaw:

“**authority having jurisdiction**” means the Municipality of North Cowichan or the official or agency designated by North Cowichan as the authority having jurisdiction under this bylaw;

“**Building Inspector**” means North Cowichan’s Manager of Building and Compliance and other Building Inspectors so appointed by the Chief Administrative Officer;

“**dwelling unit**” means one or more habitable rooms which together constitute a self-contained living unit including cooking, sanitary, and sleeping facilities, and which is used only for the habitation of one family;

“**float home**” means a structure incorporating a flotation system, used or intended to be used or occupied for residential purposes, containing one dwelling unit only, not primarily intended for, or used for navigation and does not include a water craft designed or intended primarily for navigation;

“**freeboard**” means the vertical distance from the waterline of a float home to the top of the flotation device or the lowest opening into the flotation device;

“**marina**” means a facility for mooring one or more floating homes and the land and water on which the facility is located;

“**pier**” means a structure extending into navigable water used as a landing place, moorage facility, promenade, or to protect or form a harbour. [BL3567]

Locating a float home

- 4 No float home may be located within North Cowichan unless it complies with this Bylaw and the Municipal Zoning Bylaw.
- 5 The owner of a float home must obtain a building permit pursuant to the Municipality's Building Bylaw. Marina owners must inform every owner of a float home wishing to moor a float home in their marina to apply to the Building Inspector for a building permit to moor a float home within the marina.
- 6 Upon issuance of the building permit, the owner of the float home must prominently affix to its main entrance a badge, decal or similar marking issued by the Building Inspector, to indicate the Building Inspector has approved the installation of the float home with accordance with this Bylaw and the Building Bylaw.

Existing float homes

- 7 A float home which is in use as a dwelling unit within North Cowichan at the date of adoption of this Bylaw, but which does not comply with the requirements of this Bylaw, may continue to be used for residential accommodation despite the provisions of this Bylaw (other than section 51), but only if the following requirements are met in relation to the float home by October 18, 2001:
 - (1) The flotation system must be certified by a qualified member of the BC Association of Marine Surveyors or a BC Professional Engineer that it provides adequate buoyancy for safe residential occupancy;
 - (2) The superstructure must be certified by a qualified member of the BC Association of Marine Surveyors or a BC Professional Engineer as to its integrity for the intended life of the structure for safe residential occupancy;
 - (3) The gas, electrical and plumbing systems of the float home must be certified by a qualified trades person that they have been inspected and present no apparent danger to occupants' health and safety;
 - (4) All chimneys, fire places and solid fuel burning appliances must be inspected and accepted by the Building Inspector as being in compliance with the BC Building Code; and
 - (5) The float home must be connected to a sewage disposal system approved under applicable provincial or federal laws concerning sewage disposal, or have installed a composting or Lectra/San toilet. [BL3116]

Part 2 – Float Home Standards

Flotation and stability

- 8 The design of flotation systems must be sealed by a qualified member of the BC Association of Marine Surveyors or a BC Professional Engineer qualified in such design.
- 9 Where solid flotation devices are not used, adequate pumps must be kept in proper working order, and accessible sounding pipes must be provided for each compartment.
- 10 Non-solid flotation devices must be equipped with a bilge alarm system with detectors in each compartment with audible and visual alarm indicators in the float home.
- 11 The overall buoyancy and stability of the flotation system and superstructure must be designed to accommodate local wind conditions and water turbulence, moving and launching,

wave action, tides, loads imposed by vessels and walkways moored to the structure, live and dead loads and the possibility of water flooding associated with fire fighting.

Buoyancy criteria

- 12** The flotation system must have sufficient buoyancy to support the total weight of the float home (flotation system and dwelling together), fully loaded with all people, furnishings, personal effects, stores, fuel, water, sewage holding capacity, and the maximum weight of accumulated snow, yet still maintain a minimum freeboard of 200 mm and 400 mm under normal load conditions without snow.
- 13** The flotation system must have sufficient stability in both the longitudinal and transverse directions to limit the amount of trim (the angle of inclination of the flotation device from horizontal, along the length) and heel (the angle of inclination of the flotation device from horizontal, across the breadth) resulting from wind forces to a maximum of one half of the freeboard at rest or 5 degrees, whichever is less.

Damaged stability

- 14** Non-solid flotation systems must be subdivided by watertight bulkheads and have integral flotation material or employ alternate methods of limiting the ingress of water such that in the event of damage to any 2 adjacent compartments, the minimum freeboard of the flotation device after damage is not less than 100 mm at any point. The initial load condition for assessing damaged stability must represent the maximum "normal" load of the float home, without the added weight of snow.

Design and construction

- 15** Float home superstructures and interior living areas must be designed and built according to Part 9, "Housing and Small Buildings", of the *BC Building Code*, with the following exemptions:
- (1) Stairs providing a required means of egress from an area of not more than 40 m² must have a minimum clear width of 760 mm, and the angle of inclination above the horizontal must not exceed 50 degrees;
 - (2) Guard rails are not required where open decks, balconies, and walkways do not exceed one metre in height above the water line;
 - (3) Areas and dimensions of rooms and spaces in a float home may be less than those specified in the *BC Building Code* provided it can be shown that the rooms and spaces are adequate for their intended use;
 - (4) Fastenings in areas exposed to the elements must be of a corrosion resistant material suitable for marine use;
 - (5) No part of the superstructures of the float home may exceed two stories of living space, or exceed 9 m in height.

Electrical, gas and flammable liquids

- 16** Electrical work must comply with *Electrical Safety Act* and pursuant regulations.
- 17** Gas work must comply with the *BC Gas Safety Act*, and pursuant regulations.
- 18** Lighting, heating, and cooking systems utilizing either natural or liquid petroleum gases or flammable liquids such as gasoline, oil, kerosene, and naphthalene are not permitted on float

homes unless the design and installation of the entire lighting, heating, and cooking systems have been inspected, and that it has been accepted by the authority having jurisdiction.

- 19** The float home must be fitted with a gas detector for liquid petroleum or natural gas with an audio-visual alarm interconnected with an electrical solenoid shut-off valve to stop the gas flow before it enters the float home.

Plumbing

- 20** Float homes must be supplied with an approved source of potable water.
- 21** Float homes must have a plumbing system which complies with the *BC Plumbing Code*.

Sewage disposal

- 22** Float homes must be connected to an approved sewage disposal system, under applicable provincial and federal laws concerning sewage disposal, when such a system becomes available. [BL3216]

Safety equipment

- 23** Float homes must include safety equipment, including at least one fire extinguisher and one buoyant throwing aid with at least 7.5 m of line attached.
- 24** A least one 2A5BC rated portable fire extinguisher must be placed at the entrance or exit of each float home.
- 25** Portable fire extinguishers must be placed in accordance with Chapter 3 of the National Fire Protection Association (NFPA) Standard 10, (Portable Fire Extinguishers).
- 26** Float homes, in a marina, must either be protected by
- (1) a fixed automatic sprinkler system installed in accordance with NFPA Standard 13D (Installation of Sprinkler Systems in One-and-Two Family Dwellings and Mobile Homes); or
 - (2)
 - (a) wharves, piers and walkways serving the float home which are constructed of totally non-combustible materials,
 - (b) wharves and piers incorporating a water system installed in accordance with NFPA Standard 14 (Installation of Standpipe & Hose Systems), and
 - (c) fire fighting access to float homes.
- 27** Float homes must be equipped with smoke detectors or alarms in conformance with the BC Building Code.

Moorage

- 28** Sufficient fastenings must be available to prevent the float home from separating from the wharf, pier or walkway due to list, wind, or grounding.
- 29** The minimum distance between the floats or walls of adjacent float homes must be 3 m.

Access

- 30** Each float home must have direct access to an unobstructed walkway or pier leading to shore.
- 31** Piers and walkways must be a minimum of 1.5 m in width.

- 32 Walkways must have a non-slip surface.
- 33 Inclined walkways or ramps with a gradient exceeding 1:10 must have handrails.

Part 3 – Marina Standards

General standards

- 34 No person may construct a marina or make structural or mechanical renovations to a marina without first obtaining all necessary approvals and permits.
- 35 Each marina must be developed and operated in accordance with a municipally approved moorage site plan and development permit.
- 36 The moorage site plan must include the following:
 - (1) the legal description of the property;
 - (2) the dimensions of the site;
 - (3) the location of abutting public waterways;
 - (4) the location and dimensions of access to the moorage;
 - (5) a written statement regarding the maximum allowable number of float homes or facilities and the off-street parking spaces provided;
 - (6) a water service system;
 - (7) an on-site sewer system;
 - (8) an electrical service and lighting system;
 - (9) an area for garbage collection facilities.
- 37 Marina moorage site plans must be submitted to the authority having jurisdiction for review and approval.
- 38 Any changes to approved moorage site plans require written authorization from the authority having jurisdiction before construction begins.
- 39 Each marina owner or operator must maintain a current register of every float home moored at the marina, that shows the following information for each float home:
 - (1) name and address of the owner;
 - (2) name (if any) of float home;
 - (3) registration number (if any);
 - (4) length and size;
 - (5) date moored.
- 40 The register must be available for inspection by municipal officials during regular office hours.

Site development

- 41 The planning of floating communities must be carried out in conjunction with an upland development in order that facilities and services can be easily and readily shared.

- 42 The water level at zero tide (hydrographic datum - the level of the lowest normal tides) must be sufficient to provide 0.6 m of water depth beneath all watercraft and float homes moored in a marina.

Spacing

- 43 The minimum distance between the floats or walls of adjacent float homes must be 3 m.
- 44 The minimum distance between the floats or the walls of float homes on opposite sides of a moorage walkway must be 3 m.
- 45 Float homes must have sufficient direct access to open water to allow for access in and out of moorage berths in a case of emergency.
- 46 Each float home must abut open water of at least 6 m in width.
- 47 Access must be provided to at least two adjoining sides of the float home by walkways either on the base of the structure itself or on the floats of the marina. Access on the structure must be a minimum of one m in width.

Permits and fees

- 48 Each marina operator must pay building permit fees, and development cost charges in accordance with the rates in effect at the time a marina moorage site plan is submitted for approval.

Marina Sewage Facilities

- 49 Each marina and float home within a marina must have or be connected to an approved sewage disposal system, under applicable provincial and federal laws concerning sewage disposal. [BL3116]
- 50 Despite section 76, an owner of an existing marina without a sewage disposal system must connect each float home in the marina to a sewage disposal system approved under applicable provincial or federal laws concerning sewage disposal when such a system becomes available. [BL3216]
- 51 No sewage or oil may be discharged into the water, and marina owners must post notices in conspicuous locations prohibiting such discharge.
- 52 The sewage pump-out system must discharge into an approved sewage system and must be designed, operated, and maintained to prevent discharge of sewage onto docks or into adjacent water.
- 53 The sewage pump-out system provided at marinas must be available for use 24 hours a day every day on which the marina is operated.
- 54 All sewer laterals must be located beneath the walking surface of the dock walkway.

Marina fire protection

- 55 Marinas must meet the fire protection requirements specified in this Bylaw or the fire protection requirements specified in NFPA Standard 303 ("Fire Protection Standards for Marinas and Boatyards").
- 56 The marina owner must adopt procedures to show that the marina and equipment comply with the requirements of this Bylaw and to show that maintenance and inspection functions

are carried out as specified in this Bylaw. As part of this function, all marinas must have a fire safety plan in accordance with the *Fires Services Act* and pursuant regulations.

- 57** Combustible piers, walkways and substructures must be protected in accordance with Section 3-3 of NFPA Standard 307 (Construction and Fire Protection of Marine Terminals, Piers and Wharves) if they exceed of 7.6 m in width or 465 m² in area, or if they are within 11.4 m of other structures required to be so protected.
- 58** The preceding section does not apply
- (1) in the case of fixed piers and docks, where the vertical distance does not exceed 0.91 m from the surface of mean high water level to the underside of the pier surface;
 - (2) in the case of floating docks, where the vertical distance does not exceed 0.91 m from the surface of the water to the underside of the dock surface, or
 - (3) in existing facilities, where the size of the facility and the adequacy of the water supply render fire protection specified in the preceding section.

Cleanliness

- 59** Marinas must be maintained at all times in a state of general order and cleanliness and, in particular, the following conditions must be eliminated or controlled:
- (1) uncontained trash, wood scraps, sawdust, rags, pallets, styrofoam, and old timbers;
 - (2) used engines and engine parts, miscellaneous metal, unused machinery, and similar items placed other than in a specifically designated and fenced area;
 - (3) open unused paint cans or other flammable fluid;
 - (4) spills of oil, paint or fuel;
 - (5) Covered metal containers must be provided at convenient locations in areas used for construction, service or repair for storage of oily and soiled rags and other refuse subject to spontaneous combustion.
 - (6) Separate metal containers must be provided in areas used for construction, service or repair for storage of sawdust, wood chips and other residue and trash that is not readily subject to spontaneous combustion.
 - (7) Covered containers must be provided throughout the facility, including locations convenient to moored boats, for garbage and trash, located in areas where ignition of contents will not pose a hazard to the surroundings.

Maintenance

- 60** The marina owner must annually inspect, test, and operate fire fighting equipment and systems and ensure firefighting personnel can safely access all parts of the marina.
- 61** All fire-fighting equipment and systems must be annually inspected and tested at regular intervals by an independent agency qualified to carry out such work.
- 62** All fire extinguishers must be emptied at the end of their service period.
- 63** Fire hoses must be unrolled, inspected, and tested in accordance with the manufacturer's instructions at least once a year.

- 64** Walkways, piers, access roads, and other parts of the marina must be maintained free of obstructions at all times so as to provide safe access to all parts of the facility by fire-fighting personnel and equipment.
- 65** Walkways must be illuminated to an average illumination level of 20 lux; critical areas, such as gates, ramps and safety stations, must be illuminated to an average illumination of 50 lux.

Fire department liaison

- 66** The marina owner must assist the local fire authority in pre-fire planning for
- (1) entries and access routes for equipment within the premises,
 - (2) location, construction, use, and accessibility of all float homes, including storage lockers,
 - (3) location and extent of outside working areas,
 - (4) location and means of access to both dry and in the water boat-storage areas,
 - (5) type and capacity of water lines on piers and walkways, including all points where connection of hydrant or pumper supplies can be effected,
 - (6) types and capacities of marina equipment, including work or tow boats, portable pumps, pier-mounted hose cabinets, all portable fire extinguishers, and
 - (7) voltages and capacities of electrical systems and location of electrical disconnecting means.

Fire protection equipment installation

- 67** Marina owners must install fire extinguishing equipment in locations approved by the Municipality.
- 68** Marina owners must keep portable fire extinguishers on piers and along bulkheads to which float homes or vessels are moored or may be moored as follows:
- (1) Extinguishers listed for combustible, flammable, and electrical fires (Classes A, B, & C) must be installed at each end of a pier and bulkhead that exceeds 7.6 m in length, and on piers exceeding 15.2 m in length, such that a distance of not more than 15.2 m separates extinguishers;
 - (2) All extinguishers installed on piers must meet the rating requirements set forth in Chapter 3 of NFPA Standard 10 ("Portable Fire Extinguishers"), for ordinary (moderate) hazard type;
 - (3) In vessel storage areas, portable fire extinguishers must be installed in aisles such that a distance of no more than 30.4 m separates each extinguisher; and
 - (4) All portable fire extinguishers must be maintained in accordance with Chapters 4 and 5 of NFPA Standards 10 ("Portable Fire Extinguishers"), and must be clearly visible and marked.

Fire standpipe system

- 69** Standpipe systems, when required, must be installed in accordance with NFPA Standard 14 ("Installation of Standpipe and Hose Systems"), with the exception that hose racks, hoses, and standpipe cabinets are not be required on piers.

- 70** Buildings and buildings on piers must be provided with standpipe systems.
- 71** Class II standpipe systems must be installed on all piers in excess of 61 m in length extending from the shoreline.
- 72** Class III standpipe systems must be installed on all piers in excess of 157.4 m in length from the shoreline.

Hydrants and water supplies

- 73** Hydrants and water supplies for fire protection in marinas must be provided in accordance with NFPA 13, "Installation of Sprinkler Systems," or NFPA Standard 14, "Installation of Private Fire Service Mains and their Appurtenances."

Maintenance of fire protection equipment

- 74** Portable fire extinguishers, automatic sprinkler systems, standpipe systems and water supply facilities must be maintained in accordance with
 - (1) NFPA Standard 10 (Portable Fire Extinguishers);
 - (2) NFPA Standard 13A (Inspection, Testing and Maintenance of Sprinkler Systems);
 - (3) NFPA Standard 14 (Installation of Standpipe and Hose Systems);
 - (4) NFPA Standard 20 (Installation of Centrifugal Fire Pumps); and
 - (5) NFPA Standard 24 (Installation of Private Fire Service Mains and their Appurtenances).

Transmittal of fire emergency

- 75** All marinas must have a means to rapidly notify the fire department in the event of an emergency. If a telephone is used for this purpose it must be available for use at all times and must not require the use of a coin.

Grace period for compliance

- 76** Marinas existing on the date of the adoption of this Bylaw must, within one year from the adoption of this Bylaw, be upgraded to comply with the requirements of this Bylaw.
- 77** Until a marina existing on the date of the adoption of this Bylaw complies with the requirements of this Bylaw, no additional float homes may be moored in the marina. [BL3116]
- 78** [Repeal; BL3567]

Severability

- 79** If any section, subsection, clause, or phrase of this Bylaw is, for any reason, held to be invalid by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portion of this Bylaw.

Contravention

- 80** Any person who contravenes any of the provisions of this Bylaw, or who suffers or permits any act or thing to be done which contravenes this Bylaw, or who neglects to do or refrains from doing any act or thing which is required by any of the provisions of this Bylaw, commits an offence against this Bylaw and is liable upon summary conviction to the penalties hereby imposed.

Penalty

- 81** (1) A person who contravenes a provision of this Bylaw is guilty of an offence and is liable upon summary conviction for a first offence, and each subsequent offence, to a fine of not less than \$100, and to a maximum of \$2 000.
- (2) The penalties imposed under this Section shall be in addition to, and not in substitution for, any other penalty, sanction, or remedy imposed to enforce this Bylaw.

Read a first time on May 5, 1999.

Read a second and third time on December 1, 1999.

Approved by the Minister of Health on December 14, 1999.

Adopted on July 19, 2000.