CITY OF MISSION

BYLAW 6344-2025-5650(7)

A Bylaw to update the Private Water Systems section

WHEREAS the Council of the District of Mission has adopted "District of Mission Development and Subdivision Control Bylaw 5650-2017";

AND WHEREAS the Council of the City of Mission deems it advisable and in the public interest to amend the Development and Subdivision Control Bylaw;

NOW THEREFORE the Council of the City of Mission, in open meeting assembled, ENACTS AS FOLLOWS:

1. This Bylaw may be cited for all purposes as "City of Mission Development and Subdivision Control Amending Bylaw 6344-2025-5650(7)".

2. "District of Mission Development and Subdivision Control Bylaw 5650-2017", as amended, is hereby further amended as described and shown in Attachment A attached to and forming part of this Bylaw.

READ A FIRST TIME this 17th day of March, 2025

READ A SECOND TIME this 17th day of March, 2025

READ A THIRD TIME this 17th day of March, 2025

ADOPTED THIS __ day of ___, 202x

PAUL HORN
MAYOR

JENNIFER RUSSELL
CORPORATE OFFICER

Amendment Date	**March 2025**		
Affected Document(s):	**Development and Subdivision Control Bylaw 5650-2017**	**Change Type:**	**Edit**
Section	**Schedule D, Section 3.15.1**	**Change Summary:**	**Update Legislating Documents**
Currently:	3.15.1 Where no City of Mission water system exists, the Developer shall provide potable water from a proven ground water source for each lot as per the Provincial Drinking Water Protection Act and Regulations, Water Act and this bylaw.		
Should be:	3.15.1 Where no City of Mission water system exists, the Developer shall provide potable water from a proven ground water source for each lot. ~~as per the Provincial Drinking Water Protection Act and Regulations, Water Act and this bylaw.~~ The use of groundwater is governed by the Water Sustainability Act, Water Sustainability Regulation, the Groundwater Protection Regulation, and Fraser Health, which establish the requirements for groundwater investigations, analysis and licensing in the Province of British Columbia. It is recommended that all developers and groundwater users consult these documents for additional information in advance of investigating a groundwater and/or surface water supply.		

Amendment Date	**March 2025**		
Affected Document(s):	**Development and Subdivision Control Bylaw 5650-2017**	**Change Type:**	**Edit**
Section	**Schedule D, Section 3.15.4**	**Change Summary:**	**Add Requirement for Well Decommissioning**
Currently:	3.15.4 All water well drilling, construction and abandonment must be done according to the BC Water Act and Regulations.		
Should be:	3.15.4 ~~All water well drilling, construction and abandonment must be done according to the BC Water Act and Regulations.~~ Development that results in or identifies the abandonment of an existing or newly constructed well will be required to be decommissioned per the Water Sustainability Act, Water Sustainability Regulation, and the Groundwater Protection Regulation. Evidence of decommissioning efforts must be provided to the Engineer in the form of a Well Closure Report.		

Amendment Date	**March 2025**		
Affected Document(s):	**Development and Subdivision Control Bylaw 5650-2017**	**Change Type:**	**Edit**
Section	**Schedule C, Section 3.15.5**	**Change Summary:**	**Reference to Guidelines for Canadian Drinking Water Quality and Clarity Restructure**
Currently:	3.15.5 Wells providing domestic water supply to properties in rural subdivisions are required to meet the health related water quality parameters contained within the Guidelines for Canadian Drinking Water Quality. Where the groundwater professional recommends treatment of the well water for one or more aesthetic and or health related parameters which exceed the maximum acceptable concentrations in the Guidelines For Canadian Drinking Water Quality, the Developer shall register a restrictive covenant in a form acceptable to the Approving Officer over each lot in the subdivision for which treatment of well water is recommended requiring that a treatment system be installed and maintained by the property owner as a condition of using the well water from that lot for domestic supply. A water sample shall be collected and analyzed from each well and tested for compliance with the Maximum Acceptable Concentrations (MAC) for health and aesthetic related parameters as detailed by the current Health Canada Guidelines for Canadian Drinking Water Quality. Chemical analysis reports shall list these parameters at the minimum. The MAC for each parameter and the measured concentration of each parameter shall be shown. Parameters whose concentrations exceed the MAC shall be flagged with an asterisk (*) on the report. **<u>Health Related Parameters</u>** Arsenic Barium Boron Chromium Fluoride (dissolved) Lead Nitrogen Nitrate Microbiological Coliform, Total Coliform, Fecal **<u>Aesthetic Related Parameters</u>** (compliance with aesthetic related parameters is necessary to meet the definition of potable water in the Safe Drinking Water Regulation) Chloride Copper Iron		

	Manganese Sodium Sulphate Zinc **Physical Related Parameters** Turbidity Hardness* pH Total Dissolved Solids * Public acceptance of hardness varies considerably. Generally hardness levels between 80 and 100 mg/l (as CaCO3) are considered acceptable; levels greater than 200 mg/l are considered poor but can be tolerated; those in excess of 500 mg/l are normally considered unacceptable. Where water is softened by sodium ion exchange, it is recommended that a separate un-softened supply be retained for culinary and drinking purposes.
Should be:	3.15.5 Wells providing domestic water supply ~~to properties in rural subdivisions~~ are required to meet the health related water quality parameters contained within the Guidelines for Canadian Drinking Water Quality. A water sample shall be collected and analyzed from each well and tested for compliance with the Maximum Acceptable Concentrations (MAC) for health and aesthetic related parameters as detailed by the current Health Canada Guidelines for Canadian Drinking Water Quality. Where the groundwater professional recommends treatment of the well water for one or more aesthetic and or health related parameters which exceed the maximum acceptable concentrations in the Guidelines For Canadian Drinking Water Quality, the Developer shall register a restrictive covenant in a form acceptable to the Approving Officer over each lot in the subdivision for which treatment of well water is recommended requiring that a treatment system be installed and maintained by the property owner as a condition of using the well water from that lot for domestic supply. ~~A water sample shall be collected and analyzed from each well and tested for compliance with the Maximum Acceptable Concentrations (MAC) for health and aesthetic related parameters as detailed by the current Health Canada Guidelines for Canadian Drinking Water Quality.~~ ~~Chemical analysis reports shall list these parameters at the minimum. The MAC for each parameter and the measured concentration of each parameter shall be shown. Parameters whose concentrations exceed the MAC shall be flagged with an asterisk (*) on the report.~~ ~~**Health Related Parameters**~~ ~~Arsenic~~ ~~Barium~~ ~~Boron~~ ~~Chromium~~ ~~Fluoride (dissolved)~~ ~~Lead~~ ~~Nitrogen~~ ~~Nitrate~~

	~~Microbiological~~ ~~Coliform, Total~~ ~~Coliform, Fecal~~ ~~**Aesthetic Related Parameters**~~ ~~(compliance with aesthetic related parameters is necessary to meet the definition of potable water in the Safe Drinking Water Regulation)~~ ~~Chloride~~ ~~Copper~~ ~~Iron~~ ~~Manganese~~ ~~Sodium~~ ~~Sulphate~~ ~~Zinc~~ ~~**Physical Related Parameters**~~ ~~Turbidity~~ ~~Hardness*~~ ~~pH~~ ~~Total Dissolved Solids~~ ~~* Public acceptance of hardness varies considerably. Generally hardness levels between 80 and 100 mg/l (as CaCO3) are considered acceptable; levels greater than 200 mg/l are considered poor but can be tolerated; those in excess of 500 mg/l are normally considered unacceptable. Where water is softened by sodium ion exchange, it is recommended that a separate un-softened supply be retained for culinary and drinking purposes.~~

Amendment Date	**March 2025**		
Affected Document(s):	**Development and Subdivision Control Bylaw 5650-2017**	**Change Type:**	**Edit**
Section	**Schedule C, Section 3.15.6**	**Change Summary:**	**Edit and Add Well Report Requirements**
Currently:	3.15.6 A professional engineer or geoscientist with experience in hydrogeology shall submit a detailed report for each well in the development containing the following information: 3.15.6.1 Certification that each well meets the minimum flows specified in 3.15.3; 3.15.6.2 Certification that all health related parameters of the Guidelines for Canadian Drinking Water Quality are met; 3.15.6.3 An analysis of all aesthetic parameters specified in the Guidelines for Canadian Drinking Water Quality and, for any aesthetic parameters exceeding the maximum acceptable concentration specified therein, provide a statement of the potential health or other impact of the concentrations and make recommendation for treatment of the aesthetic parameters where considered		

	necessary; and 3.15.6.4 A hydrogeological impact assessment which considers the impact of each proposed well on neighboring wells within and adjacent to the subdivision and the long term impact of the proposed wells on the source aquifer. 3.15.6.5 The developer must provide a “Certificate of Location of Well” provided by a BC Land Surveyor, confirming the location of all wells.
Should be:	3.15.6 A professional engineer or ~~geoscientist~~ Hydrogeologist ~~with experience in hydrogeology~~ shall submit a detailed report for **each** well (Existing or Newly Installed) in the development containing the following information: 3.15.6.1 ~~Certification that each well meets the minimum flows specified in 3.15.3;~~ Site Plans: 3.15.6.1.1 A surveyed site plan with property boundaries, proposed lot boundaries, easements, covenants, right-of-ways, outlines of major structures, existing or proposed septic fields, historical/existing wells (in use or not) and new/proposed well locations. 3.15.6.1.2 A property site plan with overlaid aerial photography so that major structures and vegetation are visible, and showing the property boundary, proposed lot divisions (if available) and existing on-site and off-site wells identified by the Ministry of Environment (MOE) well numbers, Well ID Plate and Well Tag Number (to be used consistently throughout the report and appendices/attachments). 3.15.6.1.3 A regional site map showing the property and relevant regional aquifers. 3.15.6.1.4 A neighbourhood site plan showing the property, proposed on-site wells and existing wells within an appropriate radius (usually between 250m and 500m) as identified by the provincial GWELLS database and any other appropriate information sources. 3.15.6.2 ~~Certification that all health related parameters of the Guidelines for Canadian Drinking Water Quality are met;~~ Introductory information that: 3.15.6.2.1 Summarizes the development necessitating the use of a new well and refers to the relevant section of the PLA that the report is satisfying. 3.15.6.2.2 States that the report is summarizing the pumping test evaluation for the specified well. 3.15.6.2.3 States the location of the well by providing the civic address and legal description (for subdivision plans with multiple lots use the proposed lot numbers/letters as shown on the surveyed site plan). 3.15.6.2.4 Provides a statement that the purpose of the report is to evaluate flow capacity of the well to meet the requirements of Section 3.15.3 including assessment of water quality per Section 3.15.5. 3.15.6.2.5 Provides a general site description discussing topographical

feature, streams, grades, vegetation, etc.

3.15.6.3 ~~An analysis of all aesthetic parameters specified in the Guidelines for Canadian Drinking Water Quality and, for any aesthetic parameters exceeding the maximum acceptable concentration specified therein, provide a statement of the potential health or other impact of the concentrations and make recommendation for treatment of the aesthetic parameters where considered necessary; and~~ Information on the well design, pump test and well yield, including:

3.15.6.3.1 Date of drilling and method.

3.15.6.3.2 Significant information on drilling observations if available.

3.15.6.3.3 Well details in table format including, as appropriate: well diameter, depth to bottom of well, depth to bottom of well casing, depth to bedrock, static water level on day recorded, depth to pump intake, total available drawdown, pumping rate, volume of water extracted, maximum observed drawdown during pump test.

3.15.6.3.4 References to the provincial guidance document(s) used for well testing and calculation of yield and statement that the testing and calculation is in accordance with the provincial guidelines.

3.15.6.3.5 Statement of daily well yield by stating “the well is capable of providing XXXX L/day and therefore meets the City of Mission requirement of a minimum of 2,500 L/day”.

3.15.6.3.6 Statement of short-term well yield by stating “the well is capable of providing XXXX L/min for four hours and therefore meets the Mission requirement of 9 L/min for four hours”.

3.15.6.3.7 If the well will be servicing a coach house or garden cottage, an additional well capacity should be allowed. The basis and amount of the allowance should be clearly stated, such as use of the Public Health Act, Sewage System Regulation Standard Practice Manual for two bedrooms which provides a design flow rate of 1,000 L/day. Developers also have the option to install a separate well for a coach house or garden cottage.

3.15.6.3.8 A table showing well ID, specific capacity, calculated well yield/drawdown, and recommended well yield.

3.15.6.3.9 A graph showing the well test drawdown and a table of analysis of results including a projected 100-day drawdown value.

3.15.6.3.10 Completed and signed Private Well Certification Form (Form F-3 from Bylaw).

3.15.6.3.11 Driller’s Water Well Record Log.

3.15.6.4 ~~A hydrogeological impact assessment which considers the impact of each proposed well on neighboring wells within and adjacent to the subdivision and the long term impact of the proposed wells on the source aquifer.; and~~ Hydrogeological impact assessment information which includes:

3.15.6.4.1 A description of aquifers in the area relative to the subject well.

3.15.6.4.2 A table of nearby wells within the appropriate radius and information on each well or key wells within the radius.

3.15.6.4.3 Description of the potential impact on neighbouring wells.

~~3.15.6.4.4 Description of the potential long-term impact on the source aquifer with consideration given to recommended well yield of subject well, and other wells within aquifer, and aquifer recharge.~~

3.15.6.5 ~~The developer must provide a "Certificate of Location of Well" provided by a BC Land Surveyor, confirming the location of all wells.~~ Information on the water quality testing, results, recommendations and requirements:

3.15.6.5.1 A description of the water sampling procedure, location and date.

3.15.6.5.2 A description of the MAC and AO standards and guidelines that the water analysis is being compared to.

3.15.6.5.3 A table or tables that show the analytical results of the sampling for all parameters required by the Bylaw, the relevant guideline, a reference to the guideline, and a comment on whether the guideline(s) are exceeded. Any values that exceed the MAC guideline should be asterisked and highlighted.

3.15.6.5.4 Reference to the laboratory's certificate (report) of analysis provided in an appendix. The analytical report should include a comment column that clearly shows if the result exceeds the MAC or if it exceeds the AO.

3.15.6.5.5 A description and analysis of the analytical results and exceedances, statement of compliance with guidelines, and recommendations to comply with water quality requirements and water quality guidelines.

3.15.6.6 Information on well-head protection for all wells on site:

3.15.6.6.1 A statement for each well on the property and whether there is appropriate well head protection including grading, surface seal, and top of casing stickup, with reference to the Groundwater Protection Regulation.

3.15.6.6.2 Provide recommendations for each well if required.

3.15.6.7 Final conclusions, clearly noting requirements and recommendations:

3.15.6.7.1 Requirements that are mandatory for compliance with legislation, including bylaw requirements, and/or necessary for health or environmental reasons shall be clearly stated as such. These requirements may be included by the City in a covenant to be placed on Title for each parcel. These requirements may also be included by the City of Mission as mandatory works prior to approval of subdivision.

3.15.6.7.2 Recommendations that are not mandatory/required, and are made in accordance with industry best practices and/or as identified by the latest edition of the Guidelines for Canadian Drinking Water Quality shall be

	stated as such. These recommendations may also be included by the City in a covenant to be placed on Title for each parcel. These recommendations may also be included the City of Mission as mandatory works prior to approval of subdivision. 3.15.6.8 All units shall be in metric. If imperial units are used, those units shall be placed in brackets. 3.15.6.9 If more than one single family residence is connected to a water supply system a Fraser Health Operating Permit is required. See the Fraser Health drinking water permits webpage for more information.

Amendment Date	**March 2025**		
Affected Document(s):	**Development and Subdivision Control Bylaw 5650-2017**	**Change Type:**	**Removal**
Section	**Schedule D, Section 3.15**	**Change Summary:**	**Remove Form F-3 Duplicate to Schedule H**
Currently:	Sample Form F-3 Shown		
Should be:	~~Sample Form F-3 Shown~~ *Remove Sample Form as it is a duplicate frequently ignored after Form F-3 updates.*		