



**AGENDA**  
**PUBLIC WORKS AND ENGINEERING COMMITTEE MEETING**

July 12, 2017, 4:30 PM  
Board Room, Service and Resource Centre,  
411 Dunsmuir Street, Nanaimo, BC

Pages

1. **CALL THE MEETING OF THE PUBLIC WORKS AND ENGINEERING COMMITTEE TO ORDER:**
2. **INTRODUCTION OF LATE ITEMS:**
3. **ADOPTION OF AGENDA:**
4. **ADOPTION OF MINUTES:**

a. **Minutes**

3 - 6

Minutes of the Regular Public Works and Engineering Committee Meeting held 2017-JUN-14 at 4:30 p.m. in the Board Room Service and Resource Centre, 411 Dunsmuir Street, Nanaimo.

5. **PRESENTATIONS:**

a. **Cross Connection Control**

To be introduced by Poul Rosen, Senior Manager, Engineering.

Presentation:

1. Shawn Sanders, Consultant, MTS Maintenance Training Systems Inc.

6. **REPORTS:**

a. **Cross Connection Control**

7 - 19

To be introduced by Brad McRae, Chief Operations Officer.

*Purpose: To provide background on the establishment of the City of Nanaimo's Cross Connection Control program.*

Recommendation: That the Public Works and Engineering Committee endorse "Cross Connection Control Bylaw 2017 No. 7249" and recommend that Council give it first three readings.

**7. OTHER BUSINESS:**

**a. Appointment of Vice Chair**

**b. Public Works and Engineering Committee 2017 Initiatives**

Public Works and Engineering Committee to discuss and outline committee initiatives for 2017, to be put forward to Council.

Note: This item was deferred at the 2017-JUN-14 meeting.

**8. QUESTION PERIOD:**

**9. ADJOURNMENT:**

**MINUTES**  
PUBLIC WORKS AND ENGINEERING MEETING  
BOARD ROOM, SERVICE AND RESOURCE CENTRE  
411 DUNSMUIR STREET, NANAIMO, BC  
MONDAY, 2017-JUN-14, AT 4:30 P.M.

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PRESENT: Councillor J. Hong, Chair

Members: Mike Donnelly  
Benafshaw Dashti  
Mike Donnelly  
Mike Herold  
Russ Irish  
Mike Leach  
Will Milligan  
Wally Wells

Absent: Councillor J. A. Kipp

Staff: B. McRae, Chief Operations Officer  
D. Lindsay, Director of Community Development  
J. Elliot, Senior Manager of Public Works  
M. Loree, Financial Analyst  
D. Fournier, Manager of Municipal Infrastructure  
J. Rose, Construction Specialist  
B. Sims, Manager of Water Resources  
P. Rosen, Senior Manager Engineering  
S. Gurrie, Corporate Officer (vacated 5:30 p.m.)  
J. Vanderhoef, Steno  
K. Gerard, Recording Secretary

1. CALL THE PUBLIC WORKS AND ENGINEERING COMMITTEE MEETING TO ORDER:

The Public Works and Engineering Committee Meeting was called to order at 4:31 p.m.

2. INTRODUCTION OF LATE ITEMS

(a) Add Agenda Item 6 (b) - Discussion regarding Sprinkler Bylaw and Roundabouts.

3. ADOPTION OF AGENDA:

It was moved and seconded that the Agenda, as amended, be adopted. The motion carried unanimously.

4. ADOPTION OF MINUTES

It was moved and seconded that the Minutes of the Regular Meeting of the Public Works and Engineering Committee held in the Service and Resource Centre, 411 Dunsmuir Street, Nanaimo, BC, on Wednesday, 2017-MAY-10 at 4:30 p.m. be adopted as circulated. The motion carried unanimously.

5. PRESENTATIONS:

(a) Meeting Procedures

1. Sheila Gurrie, Corporate Officer, provided a presentation regarding meeting procedures, conduct and how motions are made and passed.

It was moved and seconded that the Public Works and Engineering Committee receive the presentation from Sheila Gurrie, Corporate Officer, for information. The motion carried unanimously.

6. REPORTS:

(a) Development Cost Charge Bylaw

Presentation:

1. Dale Lindsay, Director of Community Development, provided a presentation regarding the following:
  - Development Cost Charges (DCC's) were implemented in 1982 in to collect monies to assist with existing and future infrastructure,
  - Current DCC's were implemented in 2009-MAR-11,
  - Current bylaws collect DCC's for six categories; roads, sewer, storm, water, distribution, water supply and parks,
  - Legislation states that Development Cost Charges can be collected at subdivision or at building permit stage,
  - Once the review process is completed the report then goes for Council review and stakeholder consultation,
  - The Development Cost Charges Steering committee has completed the study's and research to establish the framework for a new DCC bylaw including projecting the types and amount of new development and new projects and/or upgrades to existing infrastructure,
  - 4 new proposals are in the Development Cost Charges including;
    1. creating four areas with different DCC rates in each area in order to better reflect the cost burden of development,
    2. collect storm water DCC's based on the footprint of the building, size of building would reflect the amount of DCC,
    3. new category of Development Cost Charges for small lot design, lot less than 370m<sup>2</sup> or a row housing lot,

4. Elimination of Development Cost Charge exempt in the downtown core although downtown area would still maintain lower rates.
  - All Development Cost Charges include an assist factor which provides funds to local government for new infrastructure required for growth,
  - Assist factor is 1% for all infrastructure except water supply which has a 25% assist factor,
  - If the assist factor was increased, the Development Cost Charges would decrease but those funds would need to be made up through taxation or user rate increases.

It was moved and seconded that the Public Works and Engineering Committee receive the presentation from Dale Lindsay, Director of Community Development, for information. The motion carried unanimously.

It was moved and seconded that the Public Works and Engineering Committee support, in principle, the framework for a new Development Cost Charge Bylaw as outlined in the report titled Development Cost Charge Bylaw, dated 2017-JUN-14. The motion carried unanimously.

(b) Sprinkler Bylaw and Roundabouts

Committee discussion took place regarding building codes, fire sprinkler bylaws in municipalities, what defines a roundabout and plans for future roundabouts including locations. The safety benefits of roundabouts include collisions are reduced and/or less severe although they do take up a much larger footprint. Roundabouts are more expensive to build but have a lower long term cost.

7. OTHER BUSINESS:

(a) Public Works and Engineering Committee 2017 Initiatives

Committee discussion took place regarding the Public Works and Engineering Committee's initiatives for 2017. Items of interest to be discussed and forwarded to Council included:

- Incentive or benefit plan to encourage the use of solar panels in new and existing developments,
- Reducing speed limits in residential neighbourhood.

It was moved and seconded that the Public Works and Engineering Committee defer consideration of the Public Works and Engineering Committee 2017 Initiatives until the next scheduled meeting 2017-JUL-12. The motion carried unanimously.

8. QUESTION PERIOD:

No one in attendance wished to address the committee.

9. ADJOURNMENT:

It was moved and seconded at 5:43 p.m. that the meeting terminate. The motion carried unanimously.

\_\_\_\_\_  
CHAIR

CERTIFIED CORRECT:

\_\_\_\_\_  
CORPORATE OFFICER

DATE OF MEETING July 12, 2017  
AUTHORED BY POUL ROSEN, SENIOR MANAGER, ENGINEERING  
SUBJECT CROSS CONNECTION CONTROL

## OVERVIEW

### **Purpose of Report**

To provide background on the establishment of the City of Nanaimo's Cross Connection Control program.

### **Recommendation**

That the Public Works and Engineering committee endorse "Cross Connection Control Bylaw 2017 No. 7249" and recommend that Council give it first three readings.

## BACKGROUND

With the implementation of the City of Nanaimo's (CoN) water treatment plant, the water purveyors permit issued by Vancouver Island Health Authority was amended to include a requirement to implement a Cross Connection Control (CCC) program. The purpose of this program is to reduce the risk of contamination in the public water system and make the water system safer. On premises or in buildings where cross connection risks are identified, it may be a requirement to install a backflow prevention device or alter the plumbing. For example, with new commercial, industrial or institutional buildings that require fire suppression sprinklers, the building code requires a backflow prevention device to isolate it from the domestic water supply. Older buildings may have been constructed or altered under previous, less stringent requirements.

These CCC programs have been successfully implemented in many other areas of BC; however, they do require implementation of a bylaw and appropriate resourcing.

The main aspects of a CCC program include:

- Inspection of private and public premises for cross connections.
- Establishing requirements to address cross connection risks that are identified on public and private premises.
- Enforcement of the bylaw, inventory and data management to track backflow prevention devices installed within the CoN.

## OPTIONS

1. That the Public Works and Engineering Committee endorse "Cross Connection Control Bylaw 2017 No. 7249" and recommend that Council give it first three readings:
  - **Budget Implication:** There are costs associated with implementation of a CCC program. There are both staff and operating costs for running the program and

costs to bring CoN facilities and buildings into compliance. The cost of staffing and operating the program have already been included in the CoN's current financial plan. A sample of 20 CoN facilities have already been inspected and recommendations made to bring them into compliance; the estimated cost for these facilities would be \$128,000. Funding for these upgrades and for upgrades to other CoN facilities would need to be budgeted in future financial plans.

- **Political Implication:** Once the program is running and inspections have taken place, there will be requirements for all premises, within the CoN, to comply. Compliance may be as simple as minor plumbing adjustments or it could cost tens of thousands for installation of backflow prevention devices. These costs would be borne by the property owner or lease holder. Although these requirements will be mandated for the greater safety of the public water supply system, it could impose a financial hardship on the owner or lease holder.

2. For the E&PW Committee to recommend changes to the draft bylaw.

#### **SUMMARY POINTS**

- The City of Nanaimo is required to implement a Cross Connection Control program.
- The Cross Connection Control program will reduce the risk of contamination and make the public water supply safer.
- The Cross Connection Control program will occasionally require public and private property owners and lease holders to make upgrades to their plumbing systems.

#### **ATTACHMENTS**

Draft Cross Connection Control bylaw.

**Submitted by:**



Poul Rosen, Senior Manager  
Engineering



City of Nanaimo

BYLAW NO. 7249

A BYLAW RESPECTING CROSS CONNECTION CONTROL

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WHEREAS the Council of the City of Nanaimo may by bylaw operate and maintain a Municipal Water System's Cross Connection Control Program.

THEREFORE BE IT RESOLVED that the Council of the City of Nanaimo in open meeting assembled, hereby ENACTS AS FOLLOWS:

1. Title

This Bylaw may be cited as "Cross Connection Control Bylaw 2017 No. 7249"

2. Definitions

2.1 In this Bylaw:

"Approved Backflow Prevention Assembly" means a backflow preventer that is designed to be tested and repaired in-line and to meet the design and testing criteria requirements of the CSA standards B64 Series (most current editions) or a device that is designed as part of a water meter and approved by the Senior Manager of Engineering;

"Authorized Agent" includes a Person representing the City of Nanaimo by written consent;

"Auxiliary Water Supply" means any water available on or to a premises originating from a source or system, other than that from the City of Nanaimo Waterworks System;

"Backflow" means the reverse direction from normal direction of flow of water or Used Water, as a result of back-siphonage or backpressure;

"Backflow Assembly Test Report" means a form provided by or approved for use by the City of Nanaimo to be used when testing an approved backflow prevention assembly to record all pertinent information and test data;

“Backflow Assembly Tester”	means a person holding a valid certificate from the American Water Works Association, British Columbia Section for testing backflow prevention assemblies and approved by the Senior Manager of Engineering;
“Backflow Preventer”	means a mechanical apparatus installed in a water system that prevents backflow of contaminants into the potable water system and to meet the design and installation criteria requirements of the CAN/CSA standards B64 Series most current editions, or a device that is designed as part of a water meter and approved by the City of Nanaimo;
“Cross Connection”	means any actual or potential physical connection whereby the potable water system is or would be connected, directly or indirectly, with any non-potable or unapproved private water supply system, sewer, drain, conduit, well, pool, storage reservoir, plumbing fixture, or any other device which contains, or may contain, non-potable or contaminated water, liquid, gases, sewage, or other waste, of unknown or unsafe quality which may be capable of imparting a pollutant or contaminant into the potable water system as a result of backflow;
“CSA”	is the abbreviation for the Canadian Standards Association;
“Discontinue”	means to terminate the arrangement between the City of Nanaimo and the Owner for the supply of water and to Shut Off the service, disconnect, or remove it;
“Hydrant or Temporary Use Permit”	means the approval process and documents issued by the City of Nanaimo for any Person requesting water from a fire hydrant, stand pipe, or temporary water connection for purposes other than emergency fire protection;

“Inspect”	means an on-site review by the City of Nanaimo of the premises water use, meters, piping, equipment, operating conditions and maintenance records for the purpose of evaluating conformity with the terms and conditions of this Bylaw;
“Non-potable water”	means water that does not meet Health Canada’s Guidelines for Canadian Drinking Water Quality;
“Non-potable water system”	means an assembly of pipes, fittings, valves, and appurtenance that collects and distributes non-potable water;
“Occupant”	means any person who is the lessee or occupier of any premises to which water is supplied from the City of Nanaimo Waterworks System;
“Owner”	means the registered owner, or the person named as the registered owner on the tax roll by reason of agreement for sales of any lands and premises to whom the City of Nanaimo supplied water;
“Person”	shall, in addition to its ordinary meaning, include a firm or partnership, company or corporation. In addition, throughout this Bylaw where the context requires, the singular shall be held to mean and to include the plural and the masculine, the feminine or body corporate;
“Potable Water”	means water that meets Health Canada’s Guidelines for Canadian Drinking Water Quality;
“Premises”	means any real property and buildings on it;
“Premise Isolation”	means a Backflow Preventer for protection provided at the entrance to a building or property;
“Private Water System”	means any privately owned pipe and fittings intended for the delivery or distribution of water within Premises or to a property;
“Senior Manager of Engineering”	means the person duly appointed as such from time to time and includes any person appointed or designated by the Senior Manager of Engineering to act on his or her behalf and includes a successor to that position;
“Service”	means the supply of water from the Waterworks System to any person;
“Service Connection Point”	means the point of physical connection between the Waterworks System and a Private Water

System;

- “Turn Off” means to turn off the water supply by closing a City of Nanaimo owned valve or curb stop or by any other means approved by the City;
- “Turn On” means to allow the flow of water by opening a City of Nanaimo owned valve or by any other means approved by the City;
- “Used Water” means any Potable Water which is no longer in the water distribution system including Potable Water that has moved downstream or past the Service Connection Point (water meter) and/or the property line to the Private Water System;
- “Waterworks System” means the water distribution system owned by City of Nanaimo.

2.2 Standards referenced in this Bylaw shall be the most recent release of the applicable standard in effect from time to time.

### 3. Water Supply and Pressure

3.1 The City of Nanaimo does not

- (a) guarantee pressure or the continuous supply of water, or
- (b) accept responsibility at any time for the maintenance of pressure in its water mains or for increases or decreases in pressure.

3.2 The City of Nanaimo is authorized, without notice, to change operating water pressure and to Turn Off the water supply for the purposes of making repairs, extensions, alterations or improvements, or for any other reason.

3.3 The City of Nanaimo does not warrant that the water in the Waterworks System will not, from time to time, contain sediments, deposits, or other foreign matter.

3.4 Where steam or hot water boilers or other equipment is fed with water by pressure directly from the Waterworks System, the City of Nanaimo shall not be liable for any injury or damage which may result from such pressure or from lack of such pressure or any injury or damage resulting from the improper installation of a Backflow Preventer.

### 4. Inspection

4.1 Without limiting the right of entry of the City under section 16(6) of the *Community Charter*, as a condition of Service to property the employees or Authorized Agents of the City Public Works Department, and Bylaw Enforcement Officers of the City of Nanaimo, are authorized, pursuant to and subject to section 16 of the *Community Charter* to enter on property subject to this Bylaw to:

- 4.1.1. access the private water system located on private property at all reasonable hours in order to inspect the Premises to determine the existence of conditions, connections or Cross Connections that contravene this Bylaw.
- 4.1.2. Impose minimum standards that must be met and satisfied relating to the type and method of Backflow prevention;
- 4.1.3. Inspect the type of Backflow Preventer, the installation and state of maintenance and repair of same;

5. Condition of Service

- 5.1 Service supplied by the City of Nanaimo to a Premises or property shall only be provided where, in the opinion of the City of Nanaimo, the Waterworks System has been and remains effectively protected from any actual or potential Cross Connections existing at or within a Private Water System.
- 5.2 The City of Nanaimo shall not provide water nor Turn On a water valve to provide Service to the occupants of any newly renovated, constructed or reconstructed Premises until the Private Water System in such Premises has been protected from Cross Connections and in conformance with the CSA B64.10 or has been approved by the Senior Manager of Engineering.

6. Cross Connection Prohibited

Subject to the provisions of this Bylaw:

- 6.1 No Person shall create a Cross Connection by connecting, causing to be connected, or allowing to remain connected to the City of Nanaimo Waterworks System, any device, piping, fixture, fitting, container, appliance or any other chattel or thing which may under any circumstances allow non-potable water, Used Water, wastewater or any chemical, liquid, gas or other substance to enter the Waterworks System.

7. Regulations

- 7.1 If the Senior Manager of Engineering determines that the configuration of any water connection creates a risk of contamination to the Waterworks System, he or she may require the Owner or Occupant, at their sole expense, to install or cause to be installed a Backflow Preventer on the Private Water System where the Service Connection Point enters the building and downstream of the water meter, or in another location approved by the City of Nanaimo.
- 7.2 Where any condition is found to exist which the Senior Manager of Engineering determines may expose the Waterworks System to risk of contamination, the Senior Manager of Engineering is authorized to take one or more of the following actions:

- 7.2.1. give notice to the Owner or Occupant to correct the condition or Cross Connection(s) at the sole expense of the Owner or Occupant within a specified time period as indicated in a notice issued by the Senior Manager of Engineering or otherwise as listed in Schedule "B"; or
    - 7.2.2. Turn Off or Discontinue Service until the condition or Cross Connection is corrected.
  - 7.3 A Person to whom a notice under section 7.2.1 applies must eliminate or control the condition or Cross Connection giving rise to the notice by installing a Backflow Preventer, conforming to the CAN/CSA B64.10
  - 7.4 Neither the failure to send or deliver a notice, nor the failure to receive a notice, relieves an Owner or Occupant from the regulations or requirements of this Bylaw.
  - 7.5 Any Owner or Occupant whose Service has been Turned Off or Discontinued pursuant to this Bylaw is not entitled to a restoration of Service until all requirements of this Bylaw or an order or requirement under this Bylaw have been met and the Owner or Occupant has paid to the City of Nanaimo all costs associated with the Turn Off / Turn On of Service.
8. Testing, Maintenance and Repair of Backflow Prevention Assemblies
  - 8.1 The Owner or Occupant shall provide to the City of Nanaimo within thirty (30) days of initial installation, repair or relocation of an Approved Backflow Prevention Assembly, a City of Nanaimo Backflow Assembly Test Report, completed by a Backflow Assembly Tester confirming the following:
    - 8.1.1. the installation and test date of the Approved Backflow Prevention Assembly;
    - 8.1.2. the specific location of the Approved Backflow Prevention Assembly and what Cross Connection or hazard it is intended to isolate;
    - 8.1.3. the manufacturer, model, size and serial number of the Backflow Preventer installed; and
    - 8.1.4. that it is an Approved Backflow Prevention Assembly, installed correctly and in proper operating condition.
  - 8.2 An Owner or Occupant must inspect and test the Approved Backflow Prevention assembly, at the sole expense of the Owner or Occupant, using a Backflow Assembly Tester, upon installation, after repair and at least once in every consecutive twelve (12) month period thereafter.
  - 8.3 Where an Owner or Occupant fails to have an approved Backflow Preventer tested, the City of Nanaimo is authorized to notify the Owner or Occupant that the Backflow Preventer must be tested within a specified time period indicated in a notice issued by the City of Nanaimo.

- 8.4 Any Person that removes a Backflow Preventer from a plumbing system must obtain prior written consent of the Senior Manager of Engineering. Prior written consent is not required when a Backflow Preventer is removed and is immediately replaced with an equivalent Backflow Preventer and provided details are submitted to the City on a test report.
- 8.5 Where an Approved Backflow Prevention Assembly fails to function as designed or does not meet the test criteria set forth by the CAN/CSA B64.10.1 "Manual for Maintenance and Field Testing of Backflow Preventers" an Owner or Occupant must repair the Backflow Preventer and then retest it in the time period specified in schedule "B" or otherwise in a notice issued by the City of Nanaimo.
- 8.6 Despite section 8.2, the Senior Manager of Engineering may require more frequent testing of a Backflow Preventer where he or she determines this is necessary to protect the Waterworks System.

9. Temporary Water Use Connection

- 9.1 No Person shall connect, cause to be connected, or allow to remain connected, any piping, fixture, fitting, container or appliance to a fire hydrant, stand pipe or any other temporary water connection:
  - 9.1.1. in a manner which, under any circumstances, may allow Used Water, Non-Potable water, wastewater or any liquid or substance of any kind to enter the City of Nanaimo Waterworks System;
  - 9.1.2. without using an Approved Backflow Prevention Assembly which has been approved and installed in accordance with the City of Nanaimo Cross Connection Control Program; and
  - 9.1.3. without first obtaining a Hydrant or Temporary Water Use Permit.
- 9.2 In addition to any other penalties that may be applicable under this Bylaw, any Person who contravenes this section may be refused access to Service through the use of a fire hydrant or temporary water connection.

10. Auxiliary and Non-Potable Water Supplies

- 10.1. An Owner or Occupant of a premise that contains or has access to an Auxiliary Water Supply or system must ensure premises isolation of such facility with a Backflow Preventer corresponding to the degree of hazard as stipulated in the CSA B64.10.
- 10.2. There shall be no direct connection between a non-potable Auxiliary Water System and any other Potable Water system unless otherwise approved by the Senior Manager of Engineering.
- 10.3. All piping, exposed standpipes, fittings, valves and outlets for non-potable water systems must be permanently identified and marked in conformance with the CSA B128.1 "Design and Installation of Non-Potable Water Systems".

11. Commercial and Agricultural Irrigation Use

- 11.1 Where a Cross Connection exists between the City of Nanaimo Waterworks System and a Private Water System, in addition to the general provisions stated in this Bylaw, the Owner or Occupant shall also comply with the following:
- 11.1.1. All agricultural use properties shall be subject to premise isolation with a Backflow Preventer corresponding to the degree of hazard as stipulated in the CSA B64.10.
- 11.1.2. Prior to commencement of operation of the Private Water System in each irrigation season, the Owner or Occupant or any Person operating a commercial or agricultural irrigation system must cause the Approved Backflow Prevention Assembly to be inspected and tested, at the Owner's or Occupant's expense, by a Backflow Assembly Tester, in accordance with section 8.2 of this Bylaw.
- 11.1.3. An Owner of property must install and use an approved reduced pressure principal backflow assembly whenever fertilizers, chemicals or any other substance detrimental to health are introduced into an irrigation piping system.

12. Penalty Section

- 12.1 Any Person who contravenes any provision of this Bylaw commits an offence and is liable on summary conviction to a fine not exceeding Ten Thousand Dollars (\$10,000.00).
- 12.2 Each day that a violation exists or is permitted to exist constitutes a separate offence.
- 12.3 This Bylaw may be enforced by means of a ticket in the form prescribed for that purpose under section 264 of the Community Charter.
- 12.4 Pursuant to section 264(1)(b) of the Community Charter, Bylaw Enforcement Officers are designated to enforce this Bylaw.
- 12.5 Pursuant to section 264(1)(c) of the Community Charter, the words or expression in Column 2 of Schedule "A" to this Bylaw designate the offence committed under the Bylaw section numbering appearing in Column 1 opposite the respective words or expression.
- 12.6 Pursuant to section 265(1)(a) of the Community Charter, the fine amount in Column 3 of Schedule "A" to this Bylaw is the fine amount that corresponds to the section number and words or expression set out in Columns 1 and 2 opposite the fine amount.
- 12.7 Council hereby delegates the authority to refer any disputed tickets to the Provincial Court to the City of Nanaimo Chief Administrative Officer and to Bylaw Enforcement Officers.



13. Forms and Schedules

- 13.1 Schedule "A" attached to this Bylaw form a part of this Bylaw.
- 13.2 Schedule "B" attached to this Bylaw form a part of this Bylaw.

PASSED FIRST READING \_\_\_\_\_  
PASSED SECOND READING \_\_\_\_\_  
PASSED THIRD READING \_\_\_\_\_  
ADOPTED \_\_\_\_\_

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER

DRAFT

Schedule "A"  
Fine Schedule

Description of Offence	Section	Daily Fine
a. Where an Owner or Occupant Fails to eliminate a cross connection or control a cross connection by the Installation of a Backflow Preventer upon given notice.	7.3	\$ 500.00
b. Where an Owner or Occupant Fails to inspect and test an Approved Backflow Prevention Assembly, using a backflow assembly tester, upon installation, after repair and then every consecutive twelve (12) month period thereafter.	8.2	\$ 200.00
c. Where a Person removes a Backflow Preventer from a plumbing system without prior written consent of the Senior Manager of Engineering.	8.4	\$ 200.00
d. Where an Owner or Occupant Fails to, repair and retest an Approved Backflow Preventer in the time period specified in a notice issued by the City of Nanaimo.	8.5	\$ 200.00
e. Where a Person connects to a fire hydrant, stand pipe or other temporary water connection without using an Approved Backflow Prevention Assembly and without obtaining a hydrant or temporary water use permit.	9.1.2 & 9.1.3	\$ 200.00
f. Where an Owner or Occupant creates a direct connection with a non-potable auxiliary water system without the approval by the Senior Manager of Engineering.	10	\$ 500.00

Schedule "B"

Time Period Schedule

Description	Section	Time Period
1. Installation of a Backflow Preventers	7.2.1	
a. 2 inch and smaller devices		90 days from a notification issued by the City of Nanaimo or otherwise no later than January of 2018*
b. 2 inch and larger devices		90 days from a notification issued by the City of Nanaimo or otherwise no later than January of 2019*
c. Fire Sprinkler System Backflow Preventer		During the next system upgrade or significant piping changes as necessary to the fire sprinkler system*
2. Test required of an Approved Backflow Prevention Assembly	8.3	30 days
3. Repair of an Approved Backflow Prevention Assembly	8.5	30 days*

(\*Unless otherwise indicated or agreed to in writing by the Senior Manager of Engineering)