

**Ross & Ross**  
**Barristers and Solicitors**

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May 31, 2012

Councillor Brad Clark  
Chairman Planning and Development Committee  
City of Hamilton  
2<sup>nd</sup> Floor – 71 Main Street West  
Hamilton, ON L8P 4Y5

Dear Mr. Clark

**RE: 179 Sunnyridge Road, Jerseyville Rural Settlement Area  
Severance Application by Owner and Appeal by the City of Hamilton  
Nitrate Boundary Calculation error made by Source Water Planning Section  
On-Site Nitrate Reducing Sewage System - Change in Ontario Building Code**

We are the solicitors for Anthony Gumiero, the owner of 179 Sunnyridge Road, Jerseyville and we are writing to you to seek your assistance in having Council and the Planning and Development Committee rectify several critical mistakes that were made by the Source Protection Planning, Infrastructure & Source Water Planning Section, Water & Wastewater Division of the City of Hamilton at the time Council decided to appeal our client's approved severance decision to the OMB.

These mistakes made by I&SWP created an erroneous and misleading understanding by councillors on the appropriateness of the appeal to the OMB, and we believe that if these mistakes had been identified and considered at the time your Committee was deciding on whether or not to appeal, they would have elected to allow the Committee of Adjustment decision to stand and to allow our client's land severance. This is especially true as the vote to appeal the decision to the OMB only passed by one vote.

The OMB Appeal was heard during the week of November 13, 2011 and the written decision was issued on April 30, 2012. The Chairman confirmed the provisional consent to severance and confirmed the zoning and all other planning issues, but allowed the City's appeal in part by adding one more condition to the severance. This was the new requirement to obtain a "Hydrogeological Study *to the satisfaction* of the Manager I &SWP... and include a nitrate boundary calculation (as per MOE Guideline D-5-4)".

Although we were pleased to have the OMB confirm the zoning for the 1.34 acre lot size and the finding that the proposed lot fits in with the Jerseyville lot fabric, we are still concerned about dealing with Infrastructure & Source Water Planning as we are once again back to the issue of the three mistakes, and we are not confident that I&SWP will treat any submitted hydrogeological report fairly or with proper regard unless we have

our elected officials intervene in this matter and establish guidelines for I&SWP to follow.

The individual that we have been dealing with is Mr. Chris Shrive, Project Manager at I&SWP and we believe that the position he has taken on behalf of I&SWP is not consistent with the intentions of both the City of Hamilton and the Province of Ontario. We also believe that the mistakes his department have made may have affected other applicants applying for severances in other Rural Settlement Areas and that a full review of past involvement of I&SWP may be warranted. We have also included a proposed guideline for your review which could assist I&WSP in determining when it is appropriate for the City of Hamilton to allow a nitrate reducing septic system prior to the mandatory date of December 31, 2015.

We hope that you will review our concerns as they directly relate to important planning policies that fall within the mandate of the Planning and Development Committee of the City of Hamilton. The three areas in which I&SWP made mistakes and which we present for your consideration are: 1) the Provincial MOE regulations for calculating the Nitrate Boundary Concentration; 2) the issue of contamination in Jerseyville and the recommendations in the Gartner Lee Associates Limited Settlement Capability Study for Jerseyville Area, and: 3) the changes made to the Ontario Building Code for on-site Nitrate Reducing Sewage Systems which will delete existing Table 8.6.2.2A of the OBC and replace it with new Tables 8.6.2.2.A, B and C and whereby Table 8.6.6.2.2C will permit and recognize a N-1 septic system with a 50% nitrogen reduction.

## **BACKGROUND**

The property known as 179 Sunnyridge Road is situate in the Jerseyville Rural Settlement Area and totals approximately 2.68 acres making it one of the largest lots in Jerseyville. In 2008 a land severance was obtained to create an infill building lot of 1.34 acres and a retained parcel with house of 1.34 acres. The application was approved by the Committee of Adjustment with the consent of the Health Department and the Planning and Development Department as the minimum lot size for zoning purposes was 1 acre. (See original Staff Report in favour of application). The application lapsed due to a delay in satisfying a minor condition, and accordingly a new application was immediately filed. This new application was approved in 2010 by the Committee of Adjustment, however, this time the consent was granted over the objection of Planning Staff, the Health Department and the Source Water Protection, Planning Section which filed an objection that the Nitrate Boundary Calculation resulted in nitrate in the groundwater at the lot boundary to exceed the Maximum Acceptable Concentration of 10 mg/l.

The first Recommendation from Public Health Services dated October 9, 2008 to approve the Land Severance is attached as Schedule "A", the letter and Nitrate Boundary Calculation from the Chris Shrive of the Source Water Planning Section showing his calculation of **15.90 mg/L** is attached as Schedule "B", our correct Nitrate Boundary Calculation of **9.06 mg/L** is attached as Schedule "C" and the revised Recommendation

from Public Health Services dated February 3, 2010 to refuse the land severance based on the calculation of Chris Shrive is attached as Schedule "D".

The Source Water Planning Section sought to obtain the approval of the Economic Development and Planning Committee on August 9, 2010 to appeal the Committee of Adjustment decision to the OMB. At the meeting the Staff Presentation from Daniel Barnett and Chris Shrive reiterated the I&SWP position that there was "water contamination" and "elevated nitrate levels" in Jerseyville, and that there is "no mechanism to ensure that the septic system works in perpetuity and is maintained in perpetuity". (See minutes of meeting). At the same meeting we appeared before the Committee and questioned the accuracy of the technical water quality information that City Staff were relying upon and requested that the City consider a mandatory maintenance program for nitrate reducing tertiary septic systems, if the Staff were concerned about lack of maintenance and enforcement.

The committee vote taken by councilors to appeal the COA decision to the OMB passed by just one vote and as a result the OMB hearing occurred in November 2011. The written decision was issued on April 30, 2012, (see attached) and in it the OMB confirmed the provisional consent to the severance but allowed the appeal in part in which the Owner is now required to obtain a "Hydrogeological Study to the satisfaction of the Manager I &SWP... and include a nitrate boundary calculation (as per MOE Guideline D-5-4)".

#### **A NITRATE BOUNDARY CALCULATION ERROR**

- 1) MOE Guidelines D-5-4 clearly sets out the parameters to follow in making this calculation, (see attached) however the City of Hamilton **does not** follow MOE Guidelines. Instead of using the mandatory 1,000 litres a day Effluent Volume (365,000 annually) the City of Hamilton doubles the effluent flow to **2,000 litres** per day and then improperly increases it again by **250 litres** for the inclusion of a fourth bedroom. The City of Hamilton therefore improperly used a daily Effluent flow of **2,250 L/day** instead of the mandatory **1,000 L/day**. The improper calculation resulted in a Nitrate boundary concentration finding of **15.90 mg/L**. When the correct parameters of **1,000 L/day** is used it would have resulted in a Nitrate Boundary Calculation of only **9.06 mg/L**.
- 2) This major discrepancy was critical as it was the letter by Chris Shrive advising that the Nitrate Boundary was **15.90 mg/L** that resulted in Public Health Services rescinding their early approval letter of October 9, 2008 and recommending a denial on the basis that the "nitrate concentration at lot boundary exceeded the Maximum Acceptable Concentration of 10 mg/L for drinking water", when in actual fact the correct calculation would have shown that it was **below** 10 mg/L, as the proper calculation was **9.06 mg/L**. The incorrect calculation also became the basis for the Staff presentation to the Council committee for obtaining approval to appeal the COA decision to the OMB.

- 3) The other parameter used in the Nitrate Boundary Calculation is the groundwater recharge rate (infiltration) expressed in mm/a. The recharge rate originally used by the City of Hamilton was **230mm/a** based on the **Precipitation-Runoff Modeling System (PRMS)** that was developed by U.S. Geological survey and which is “an improved calibration that allows for a more realistic groundwater flow approximation”. (See Minutes of Halton-Hamilton Source Protection Committee attached and listing of average recharge rates throughout Hamilton).
- 4) At the OMB hearing the City of Hamilton produced a brand new Nitrate Boundary Calculation that finally corrected the error of more than doubling the annual effluent flow contrary to MOE Guidelines, but this time they abandoned the superior **PRMS** and reduced the Annual Rate of Recharge from **230mm/a** to **150mm/a**. This reduction in the rate of recharge now resulted in a Nitrate Boundary Calculation of **12.40 mg/L**. This calculation was done without a soil sample, and on the incorrect assumption that the lands were silty/clay. We have been privately informed by hydrogeologists and environmental firms that the 150mm/a is used simply because it results in a minimize size 2 acre lot, and that regardless of soil tests and hydrogeological reports, I&SWP will arbitrarily assign a 150mm/a recharge simply to obtain the 2 acre minimum size.
- 5) The Hamilton Region Source Protection Area recently published a Proposed Assessment Report identifying the superiority of the **PRMS** and setting out the annual recharge rates throughout the Hamilton Region Source Protection Area. The report concluded that the recharge rates below the escarpment, being till and shale units, limit infiltration and therefore have a lower recharge rate. On the other hand, the lands above the escarpment, being the sandier soils and fractured dolostone, have a higher recharge rate. The Hamilton Source Protection Area report concludes that “the **average annual recharge rate** for the Hamilton Source Protection Area is **202mm/a** with a range between **97 and 310 millimetres.**” (See pages 94, 130, 131 & map) One can therefore ask how could I&WSP arrive at a 150mm/a recharge rate when the average in all of Hamilton, which includes the lands below the escarpment, is 202mm/a. If the 202mm/a average recharge rate is used the Nitrate Boundary Calculation works out to 10.009 mg/L
- 6) The mistakes made by I&SWP consist in failing to properly conduct a preliminary Nitrate Boundary Calculation by ignoring MOE Guidelines and then to arbitrarily switch recharge rates from their own **PRMS** recharge calculation to lower rates of their own choosing that result in a 2 acre minimum lot size. How many times has this been done by I&SWP and how many other severance applications submitted by rural Hamiltonians have been denied because of these same critical errors?

**B TECHNICAL ASSESSMENT ERRORS AND INCORRECT INTERPRETATION OF THE SETTLEMENT CAPABILITY STUDY FOR THE JERSEYVILLE RURAL SETTLEMENT AREA**

- 7) Staff from I&SWP informed councillors that there were problems with water contamination and elevated nitrate concentration in Jerseyville. This was incorrect as The Jerseyville Capability Study prepared for the City indicated that the drilled wells into the aquifer in Jerseyville contained zero levels of nitrate. Staff also mistakenly stated that extraction of groundwater through bedrock sources was at its maximum, yet the Capability Study indicated that the aquifer's supply potential had only been 45% utilized and the population of Jerseyville could at least double, from 250 to 500 persons, without jeopardizing the quantity of ground water. (Since the date of this Report in 1983 the population of Jerseyville has roughly stayed at 287 persons).
- 8) Staff from I&SWP in raising the issue of nitrate contamination further implied that this contamination was known from "recent evidence as well as more recent servicing management issues". The only evidence that Staff appear to have been mistakenly referring to was the City of Hamilton's approval of the Poplar Estates development which is 8 acres of farmland that had been fertilized with chicken manure, and which had been rezoned for residential lots and incorporated into the Jerseyville Rural Settlement Area. The chicken manure created nitrate in the topsoil and the high concentration levels and readings required Ministry of Agriculture and MOE remedial work to prepare the lands for residential development. This subdivision, however, was on the other side of Sunnyridge Road, and with a completely different drainage pattern than 179 Sunnyridge Road. The issues raised in this other residential development and the origins of the high nitrate levels on the agricultural land therefore had no relevance to the severance decision respecting the residential lands known as 179 Sunnyridge Road. I&SWP was in error in referring to these specific problems and complaint letters associated with the rezoning of agricultural lands, as being factors that councillors should consider for the infill severance lot created at 179 Sunnyridge Road.
- 9) Staff at I&SWP have selectively chosen what portions of the Capability Study they wish to follow or to ignore, and have mistakenly attributed the features and shortcomings of the 8 acre residential development on Poplar Street to the infill severance at 179 Sunnyridge Road.

**C RECENT CHANGES TO ONTARIO BUILDING CODE TO RECOGNIZE ON-SITE NITRATE REDUCING SEPTIC SYSTEMS**

- 10) In all our discussions with I&SWP and in our submissions at the Committee of Adjustment hearing and also in our presentation to the Economic Development & Planning Committee we always stated that we would install an on-site Nitrate reducing septic system that would reduce nitrate effluent concentration by 50%. We also stated that we would agree in writing to a registered undertaking on title for maintenance and inspection of the tertiary system to ensure its compliance of

nitrate reduction. We further advised I&SWP that we would allow monitors at the lot boundary to measure actual nitrate concentration were below 10mg/L.

- 11) At the Committee of Adjustment hearing, at the Economic Development & Planning meeting and at the OMB hearing, I&SWP consistently stated that they would not consider a nitrate reducing system as “there is no mechanism to ensure that the system works in perpetuity and maintained in perpetuity”. Mr. Chris Shrive on behalf of I&SWP also stated in November 2011 at the OMB hearing that “the only septic system permitted in the Building Code was a Class 4 System”, and that “a new tertiary system can reduce nitrates but that they are not recognized in the Building Code as doing so.”
- 12) I&SWP, however, has never volunteered nor informed councillors that the Ontario Building Code has been amended under Ontario Regulation 350/06 to allow a Discretionary Septic Inspection Program to allow and recognize on-site nitrate reducing systems. In the new proposed replacement Table 8.6.2.2.C the new Building Code recognizes a **N-I Level Septic System** and a nitrogen reduction of **50%**. The new Building Code although enacted, is already mandatory in some areas within 100 meters of lakes, and fully discretionary outside designated area with the I&SWP having full flexibility to determine these aspects of the program themselves, with nitrate reducing systems becoming mandatory in at-risk areas by the end of 2016.. (See Ministry of the Environment Source Protection Programs Branch memorandum to all SPP Managers)
- 13) The proposals contained in the new Building Code recognizing the on-site nitrogen reducing septic system have all been known by I&SWP for some time, yet Staff has continually refused to acknowledge that **inspection, maintenance and replacement can be enforced** by the City of Hamilton in 2016 or such earlier date as decided upon by I&SWP. This vital and crucial information of a legislative mechanism which ensures that the system works, is inspected and maintained would be in place in Hamilton was never admitted by Staff at the Committee of Adjustment nor at the Planning Committee meeting.
- 14) Two months before the OMB hearing staff at I&SWP was advising land developers that although the municipal requirements for on-site nitrogen reducing septic systems do not have to be in place until the end of 2016, “**that doesn’t mean (I&SWP) won’t recognize the capabilities before then**”. (See Chris Shrive email of September 19, 2011).
- 15) The OMB decision in approving the severance added the one new condition of a Hydrogeological Study to be completed “to the satisfaction of the Manager I&SWP”. My client is prepared to meet this requirement, however, we kindly ask that your committee instruct I&SWP to recognize the capabilities of the N-I septic system in the hydrogeological report, if the nitrate concentration at the lot line becomes an issue, and for I&SWP forward its approval to the Secretary-Treasurer of the Committee of Adjustment.

- 16) We understand the similar concerns of Council and Staff at I&SWP as expressed in the case of Devins v. Halton Hills OMB file No. S050025 concerning a developer's request to install multiple nitrate reducing systems in a subdivision with existing drinking water wells down-gradient from the proposed subdivision. We agree that the discretion to accept the N-I system should be limited to certain situations in order to prevent developers from obtaining subdivision approval for multiple lots prior to the City of Hamilton requirements being finalized. We suggest that the appropriate times to exercise the discretion would be when the following circumstances are met: a) the preliminary Nitrate Boundary Calculation using PRMS is below 10mg/L; b) the development applied for is a single infill severed lot; c) the size of the created severed lot is larger than the majority of lots in the area; d) there is no expectation of a source of drinking water down-gradient from the severed lot, e) no complaints or objections filed by any adjoining landowner, and; f) the owner is prepared to have registered in title an undertaking to be fully liable under and to fully adhere to the OBC requirements for the inspection, maintenance and replacement of the N-I system in accordance with the regulations and any impending regulations to be adopted by the City of Hamilton.
- 17) In respect of 179 Sunnyridge Road all of the above conditions are met, and the hydrogeological data respecting surface drainage and the flow of groundwater and the aquifer clearly demonstrates that there is no danger to any neighbour as the only land which is down-gradient is an empty agricultural field.

We hope that the Planning Committee will consider the issues that we have set out in this letter, and that we will be granted an opportunity to make a complete presentation in the near future before your committee to explain the mistakes that were made by I&SWP and to answer any questions.

We sincerely believe that because of the errors made by I&WSP and due to their highly subjective handling of our file the direct involvement of our elected officials is now necessary, and that hopefully your committee's direction to I&SWP to recognize the capabilities of the N-I septic system in the requested hydrogeological report will result in an equitable resolution of the matter. We enclose copies of the relevant correspondence and documentation that have been referred to in our letter and if you require any further information please do not hesitate to contact our office.

Yours very truly,

ROSS & ROSS

Per:

  
John J. Ross

JJR/rf

Encl.

THE CITY OF HAMILTON

PUBLIC HEALTH SERVICES  
HEALTH PROTECTION DIVISION  
1 Hughson Street North, 3<sup>RD</sup> FLOOR  
Hamilton, ON L8R 3L5

Tel: (905) 546-3570  
Fax: (905) 546-2787

REPORT ON APPLICATIONS FOR LAND SEVERANCE

DATE: October 9, 2008

File No.:LD: AN/A-08:263; HU: A-08-63

TO: Carol Connor  
Secretary-Treasurer  
Committee of Adjustment (City of Hamilton)  
Fax (905) 546-4202

RE: 179 Sunnyridge Road  
Former Town of Ancaster  
Now City of Hamilton

DATE OF INSPECTION: October 7, 2008

COMMENTS:

Public Health Services has no objection to the proposed land severance, provided the septic systems and wells meet the requirements of the City of Hamilton Building Department.

RECOMMENDATIONS:

Approved subject to the above.

All of which is respectfully submitted.

for



Medical Officer of Health  
Public Health Services



Public Health Inspector  
Jane Lee, C.P.H.I.(C)




# Schedule "B"

Parameters	Units	179 SunnyRidge Rd
Eff Flow Daily	L/Day	2250
annual Eff Vol	L/a	821250
N Conc	mg/L	40
Background Conc	mg/L	0
Recharge	mm	230
Attenuation area	m <sup>2</sup>	5414
Recharge Vol	L	1245220
Total volume	L	2066470
anticipated effluent concentration	mg/L	15.90
anticipated effluent concentration	mg/L	15.90
Comments	using 1125L/Day/residence average daily flows (based on 4 bedrooms), recharge estimate from PRMS model of 230mm/a, and the total land available for attenuation of 5414m <sup>2</sup> (from application), and background concentration of 0mg/L nitrate.	

Summary	
volume required for 10mg/L (L/a)	3285000
volume of recharge required (L/a)	2463750
Required area (m <sup>2</sup> )	10711.96
Required area (Ac)	2.68
Required area (Ha)	1.07
Acceptable impervious area (m <sup>2</sup> )	-5297.956522
Additional Impervious area req'd (Ha)	0.53

Trusting this meets....., thanks again for the opportunity to comment.

Chris Shrive, M.Sc., P.Ag.  
 Senior Project Manager, Source Protection Planning  
 Infrastructure & Source Water Planning Section  
 Water & Wastewater Division

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 SECRETARY · TREASURER

# Schedule "C"

2) Proposed Severance (Each Lot)		
Parameters	Units	Estimated Quantities
Daily Effluent Flow (based on 3 bedrooms)	L/day	1,000
Annual Effluent Volume	L	365,000
Average Nitrate Concentration in Effluent	mg/L	40
A: Annual Mass of Nitrate	mg	14,600,000
Background Concentration of Nitrate in Groundwater	mg/L	-
Average Annual Rate of Groundwater Recharge (infiltration)	mm/a	230
Attenuation Area (lot size)	m <sup>2</sup>	5,413
Recharge Volume	L	1,244,990
B: Combined Effluent and Recharge Volume	L	1,609,990
A/B: Estimated Nitrate Concentration at Property Boundary	mg/L	9.06

THE CITY OF HAMILTON

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REPORT ON APPLICATIONS FOR LAND SEVERANCE

DATE: February 3, 2010

File No.: LD: AN/B-10:02; HU: A-10-01

TO: Carol Connor  
Secretary-Treasurer  
Committee of Adjustment (City of Hamilton)  
Fax: (905) 546-4202

RE: 179 Sunnyridge Road  
Former Town of Ancaster  
Now City of Hamilton

COMMENTS:

Further to a site visit of subject property on January 25, 2010, Public Health Services has recently become aware of additional information concerning this severance application.

Specifically:

1. Subject lands to be severed and retained are located in an area where Settlement Capability Studies identify recommended lot sizes of 2 acres minimum to ensure that groundwater used as a source of drinking water is not adversely affected.
2. Preliminary calculations as provided by Infrastructure and Planning-Source Water Protection, Public Works Department indicate support for the 2 acre minimum lot size recommendation for this area. Sufficient area is needed to ensure nitrate concentrations found in sewage effluent are diluted to levels at lot boundary that will not adversely impact on existing groundwater generally used as a source of drinking water in the area.

In this case it appears that septic systems needed to service the proposed lots may contribute nitrates to the groundwater at lot boundary that exceed the Maximum Acceptable Concentration of 10 mg/l for drinking water. Therefore Public Health Services supports the position taken by Source Water Protection to refuse this application.

RECOMMENDATIONS:

Refused.

All of which is respectfully submitted.

for

Medical Officer of Health  
Public Health Services

Public Health Inspector  
Carlos Catarino, C.P.H.I.(C)

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SECRETARY-TREASURER

## 2010 Building Code Changes – Septic System Re-inspection Program

### Mandatory on-site sewage maintenance inspections\*:

<b>What</b>	<ul style="list-style-type: none"> <li>• On-site sewage systems subject to the Building Code Act.</li> <li>• The principal authority (municipalities, health units, or conservation authorities) may accept a certificate (in a form approved by the Minister) as an alternate to conducting an inspection of a sewage system. The Ministry of Municipal Affairs and Housing (MMAH) is currently working on these forms.</li> </ul>
<b>Where:</b>	<ul style="list-style-type: none"> <li>• Mandatory maintenance inspection program will be required where on-site sewage systems subject to the Building Code Act have been identified as a <u>significant drinking water threat in vulnerable areas</u> identified in the most recent Assessment Report under the Clean Water Act.</li> </ul>
<b>When:</b>	<ul style="list-style-type: none"> <li>• Inspections of on-site sewage systems are to be conducted no later than:               <ul style="list-style-type: none"> <li>○ 5 years after the date on which the notice of approval of the assessment report is published on the Environmental Bill of Rights Registry</li> <li>○ Every 5 years after the most recent inspection of the sewage system.</li> </ul> </li> </ul>

*\*This summary focuses on aspects of the program related to the Clean Water Act. There are also components related to the Lake Simcoe Protection Plan that have not been included here.*

### Discretionary on-site sewage maintenance inspections:

<b>What</b>	<ul style="list-style-type: none"> <li>• On-site sewage systems subject to the Building Code Act.</li> <li>• The principal authority may accept a certificate (in a form approved by the Minister) as an alternate to conducting an inspection of a sewage system. The Ministry of Municipal Affairs and Housing (MMAH) is currently working on these forms.</li> <li>• “Discretionary” – pertains to the discretion of the principal authority to include additional areas under their maintenance inspection program. It does not mean that the landowner can choose whether to complete the re-inspection if they fall within the applicable area.</li> </ul>
<b>Where:</b>	<ul style="list-style-type: none"> <li>• Principal authorities have the discretion to include additional areas (beyond what is included in the mandatory requirements) within an inspection program.</li> </ul>
<b>When:</b>	<ul style="list-style-type: none"> <li>○ Timeframes for re-inspection on-site sewage system that fall under the discretionary program are flexible. It is at the discretion of the principal authority to set these timeframes.</li> </ul>

### Ontario's Building Code

ONTARIO ONLY	PROPOSED CHANGE TO THE 2006 BUILDING CODE		
<b>CHANGE NUMBER</b>	S-B-08-06-06	<b>CODE REFERENCE</b>	Div. B Table 8.6.2.2.A
<b>DESCRIPTION OF PROPOSED AMENDMENT</b>	Revise the effluent quality table to make it consistent with the BNQ 3680-600 standard's classification of treatment units.		

#### EXISTING 2006 BUILDING CODE PROVISION(S)

Table 8.6.2.2.A.  
Other Treatment Unit Effluent Quality Criteria  
Forming Part of Sentence 8.6.2.2.(1), (2) and (6)

Parameter	Secondary Effluent <sup>(1)</sup>	Tertiary Effluent <sup>(1)</sup>
BOD <sub>5</sub>	40	15
CBOD <sub>5</sub>	30	10
Suspended Solids	30	10
Column 1	2	3

Note to Table 8.6.2.2.A.:

(1) Maximum concentration based on 30 day averages in milligrams per litre (mg/L)

#### PROPOSED CODE CHANGE

Delete existing Table 8.6.2.2.A and replace with new Tables 8.6.2.2.A, B and C as follows.

Table 8.6.2.2.A.  
Other Treatment Unit Effluent Quality Criteria  
Forming Part of Sentence 8.6.2.2.(1), (2), (5) and (6)

Level of Treatment <sup>1</sup>	TSS mg/L	CBOD <sub>5</sub> mg/L
Level II	30	25
Level III	15	15
Level IV	10	10
Column 1	2	3

Notes to Table 8.6.2.2.A.

1) Level of Treatment follows the levels outline in the CAN/BNQ 3680-600 Standard.

**Table 8.6.2.2.B**  
**Treatment Unit Quality of Disinfection**  
 Forming Part of Sentence 8.6.2.2.(2), (5) and (6)

Level of Disinfection <sup>1,2</sup>	Fecal Coliforms or E. Coli CFU/100 mL
D-I	50,000
D-II	200
D-III	ND <sup>2</sup>
Column 1	2

Notes to Table 8.6.2.2.B.

1) Level of Disinfection follows the levels outline in the CAN/BNQ 3680-600 Standard.

2) Requirements for fecal coliform or E. Coli can be used for the purposes of Type D treatment. Reactivation after disinfection was not taken into consideration in establishing these requirements.

3) ND = non-detectable (median < 10 CFU/100 mL)

**Table 8.6.2.2.C**  
**Treatment Unit Quality of Effluent for Nutrients**  
 Forming Part of Sentence 8.6.2.2.(5) and (6)

Level of Treatment <sup>1</sup>	Total Phosphorus mg/L	Nitrogen Reduction
P-I	1.0	N/A
P-II	0.30	N/A
N-I	N/A	50% Reduction
N-II	N/A	75% Reduction
Column 1	2	3

Notes to Table 8.6.2.2.C.

1) Level of Treatment follows the levels outline in the CAN/BNQ 3680-600 Standard.

**RATIONALE FOR CHANGE**

**Problem / General Background**

To expand the parameters that treatment units could be tested and certified for. This classification will facilitate their use in particular areas where reducing certain contaminants may be required by the Code.