| Peter Polley - Polycorp |   |
|-------------------------|---|
| From:                   | Peter Polley - Polycorp   |
| Sent:                   | Wednesday, October 19, 2016 3:04 PM   |
| To:                     | brendan@brendanmaguire.ca   |
| Subject:                | Halifax Regional Water Commission - Board Meeting not open to public, press or stakeholders |
| Attachments:            | Meetings.pdf  |

### Brendan [and hopefully indirectly to Minister Churchill]

Below was created hastily just now to try to get in front of the 2<sup>nd</sup> reading of the proposed changes to the Halifax Water Commission Act – Bill # 2. I have asked the Legislative Office to confirm when it will go to law amendments, but the below could be made before it even gets there...

#### General Commentary :

As discussed, I have probably been the most active critic of Halifax Water in the private sector in Halifax. I honestly believe that they are making spending decisions for hundreds of millions of dollars of infrastructure based on faulty information. As a residential builder and landlord, and having attended the relevant consultations that they conduct as part of their "check the boxes" process, it is obvious that they are operating with incorrect information from misdirected or faulty engineering studies [I have seen both]. Some very senior staff agree with industry's analysis, but there is zero accountability. I have lost faith in the UARB process as a result of the Halifax Water Regional Development Charge hearing process approx 2 years ago as I understood the engineering variables and assumptions and cannot believe what the UARB is letting them get away with getting even the 25% of what they had originally proposed to have as charges for new development. I have personally seen senior Halifax Water staff lie and misrepresent facts to serve their agenda. This is a strong statement and I stand by it.

**Requested** Change :

### Halifax Water Board meetings be open to the public - same as Halifax Council meetings

Halifax Water Board meetings must be public to increase accountability. In September, I asked to attend a board meeting as an observer and was told by James Spurr, In House Counsel at Halifax Water " As I said in my previous email the Halifax Regional Water Commission Act would need to be amended to provide for your request of attendance at Halifax Water Board meetings." Please read through the full exchange below for more detail. They are using a provision in the City of Halifax charter that permit in-camera sessions as a justification for not letting people into their board meetings. This would be an opportune time to deal with that issue. They passed a motion for a \$500,000,000 capital levy on the local building industry behind closed doors and refused to let industry attend to hear the discussion.

Anything that can be done on this could possibly save A BILLION DOLLARS. I am not joking on this. The Halifax Water alleged infrastructure deficit is a multi-billion dollar number, and they are spending money building infrastructure that we don't need. I think that you would know me well enough by now to know that I would not make statements like this if there was not a real problem.

Thanks,



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Mailing Address : PO Box 31369, Halifax NS B3K 5Z1 Courier Address : Suite 205, 339 Herring Cove Road, Halifax NS B3R 1V5

From: Peter Polley - Polycorp Sent: Wednesday, October 12, 2016 7:14 AM To: 'udi@udins.ca'; Andrew Giles (andrewgiles@eastlink.ca) (andrewgiles@eastlink.ca) Cc: Robert Grant <grant@stewartmckelvey.com> (rgrant@stewartmckelvey.com) Subject: FW: Halifax Regional Water Commission - Board Meetings

All

Please see the below exchange. It is obvious to me that the reference in the Halifax charter was written to permit council to have closed door sessions for meetings that are best to be not-public ...the clause says that meetings are to be public EXCEPT the following... he has it twisted around to justify that the meetings are to be closed door... and says "my hands are tied". What a bunch of crap.

# POLYCORP

| Peter Pol | ley                  |                    |                   |       |
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| Mailing A | ddress PO Box 31369. | Halifax NS B3K 5   | Z1                |       |
| Courier A | ddress Suite 205, 33 | 9 Herring Cove Roa | ad, Halifax NS B3 | R 1V5 |
|           |                      |                    |                   |       |

From: James Spurr [mailto:jamess@halifaxwater.ca] Sent: Monday, September 19, 2016 2:21 PM To: Peter Polley - Polycorp; ppolley@polycorp.ca Cc: Cathie O'Toole Subject: RE: Halifax Regional Water Commission - Board Meetings

My email was intended to convey the message that Halifax Water Board meetings are not open to the public, including what you attempt to describe as "Stakeholders".

As you are no doubt aware, Halifax Water is a corporation created by statute, namely, the Halifax Regional Water Commission Act. The courts have clearly articulated that the rights and obligations between such corporations and the public must be found in the governing statute. In other words, no rights exist except as are expressly given by the governing statute. As I said in my previous email the Halifax Regional Water Commission Act would need to be amended to provide for your request of attendance at Halifax Water Board meetings.

2

Trusting this sufficiently clarifies your inquiry.

James G. Spurr Corporate Legal Counsel & Secretary to the Board Halifax Regional Water Commission 450 Colvie Hill Rd, Halifax, NS B3P 2V3



From: Peter Polley - Polycorp [mailto:peter@polycorp.co] Sent: Monday, September 19, 2016 10:32 AM To: James Spurr; ppolley@polycorp.ca Cc: Cathie O'Toole Subject: RE: Halifax Regional Water Commission - Board Meetings

Mr. Spurr

Thank you for the below.

While there may not be any provision for the meetings to be open to the public, does the below constitute a formal refusal for the public to attend the Halifax Water board meetings ?

Members of the building industry and large landlords would not normally be considered to be the public in such a context, but I believe would more normally be properly considered to be "stakeholders". Does the below also constitute a refusal for stakeholders to attend the Halifax Water board meetings as well ?

Is it a requirement in the Halifax Regional Water Commission Act that in order for board meetings to be open to the public or stakeholders that it be formally noted as being allowed ?In the absence of such an provision, we do not understand the default position that the meetings are not open to the public or stakeholders.

While board minutes and packages may be available to the public, industry would like to be able to attend such meetings to be able to hear the full flow, tone and unedited nature of discussions at the board meetings.

3

Thank you,



 Peter Polley

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From: James Spurr [mailto:jamess@halifaxwater.ca] Sent: Monday, September 19, 2016 10:20 AM To: ppolley@polycorp.ca Cc: Cathie O'Toole Subject: Halifax Regional Water Commission - Board Meetings

Mr. Polley:

Your inquiry of Cathie O'Toole respecting the above noted has been referred to me for consideration and reply.

This will confirm that the Halifax Regional Water Commission Act does not contain any provision for Halifax Water Board meetings to be open to the public. By way of example I refer to Section 19 of the Halifax Regional Municipality Charter (attached) which makes provision for open meetings of HRM Council, subject to the exceptions set out in subsection (2). I note that, in any event, most of the agenda items for a typical Halifax Water Board meeting are made up of matters described in subsection 19(2) of the HRM Charter.

I can also advise that Halifax Water Board packages, including minutes of meetings (except in camera discussions), are available to the public on the Halifax Water website.

Trusting this is helpful.

James G. Spurr Corporate Legal Counsel & Secretary to the Board Halifax Regional Water Commission 450 Cowie Hill Rd, Halifax, NS B3P 2V3 <sup>6</sup> 902-450-6101 or (c) 902-478-9957 | all 902-490-4808 <sup>1</sup> Iamess@halifaxwater.ca



Halifax Regional Water Commission

From: Peter Polley - Polycorp Sent: Friday, September 16, 2016 2:51 PM To: 'Cathie O'Toole' Subject: RE: Halifax Water - board meeting schedule for Fall 2016

Cathie

I just wanted to follow up on this.

Thanks,

Peter



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From: Cathie O'Toole [mailto:cathieo@halifaxwater.ca] Sent: Thursday, September 15, 2016 9:24 AM To: Peter Polley - Polycorp Cc: James Spurr Subject: RE: Halifax Water - board meeting schedule for Fall 2016

I am not sure Peter, that is why I am deferring the question to Jim. This question has not come up for me before.

Cathie

From: Peter Polley - Polycorp [mailto:peter@polycorp.co] Sent: Thursday, September 15, 2016 9:05 AM To: Cathie O'Toole Cc: James Spurr Subject: RE: Halifax Water - board meeting schedule for Fall 2016

Thanks. I had assumed that they were public meetings and that anybody could go to them – is there any indication that they are not ?

Peter

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 Courier Address:
 Suite 205, 339 Herring Cove Road, Halifax NS B3R 1V5

From: Cathie O'Toole [mailto:cathieo@halifaxwater.ca] Sent: Thursday, September 15, 2016 9:00 AM To: Peter Polley - Polycorp Cc: James Spurr Subject: RE: Halifax Water - board meeting schedule for Fall 2016

Hi Peter – all is well. The next Halifax Water Board meeting is September 29<sup>th</sup>. Historically Board meetings have been once a month, but this year we are transitioning to a quarterly meeting schedule. The schedule of meetings for the next year will be set very shortly. All of the Board Agendas and Reports are on our website.

5

With respect to attending a meeting, I will refer that question to the Corporate Secretary Jim Spurr.

Cathie

From: Peter Polley - Polycorp [mailto:peter@polycorp.co] Sent: Wednesday, September 14, 2016 3:42 PM To: Cathie O'Toole Subject: Halifax Water - board meeting schedule for Fall 2016

Cathie

I hope all is well with you. The summer went by fast.

I wanted to know how I could get information on Halifax Water board meetings... how often they are held, upcoming schedule of date, time, location, etc. as I thought that it would be interesting to attend a few of them as an observer.

Thanks,

Peter

### 2008, c. 39

### halifax regional municipality charter

(2) Subject to the *Municipal Conflict of Interest Act*, all Council members present, including the person presiding, shall vote on a question.

(3) Unless otherwise specified in a policy, a member of the Council who fails or refuses to vote on a question before the Council is deemed to have voted in the negative.

(4) In the event of a tie in a vote on a question, the question is determined in the negative.

(5) The person presiding at a meeting of the Council may cause to be expelled and excluded any person, including a Council member, who is disrupting the proceedings of the Council. 2008, c. 39, s. 18.

### **Open meetings and exceptions**

19 (1) Except as otherwise provided in this Section, Council meetings and meetings of committees appointed by the Council are open to the public.

(2) The Council or any committee appointed by the Council may meet in closed session to discuss matters relating to

- (a) acquisition, sale, lease and security of municipal property;
- (b) setting a minimum price to be accepted by the Municipality at a tax sale;
  - (c) personnel matters;
  - (d) labour relations;
  - (e) contract negotiations;
  - (f) litigation or potential litigation;
  - (g) legal advice eligible for solicitor-client privilege;
  - (h) public security.

(3) No decision may be made at a private Council meeting except a decision concerning procedural matters or to give direction to staff of, or solicitors for, the Municipality.

(4) A record that is open to the public shall be made, noting the fact that the Council met in private, the type of matter that was discussed, as set out in subsection (2) and the date, but no other information.

(5) Subsections (3) and (4) apply to committee meetings or parts of them that are not public.

(6) Any councillor or employee of the Municipality who discloses any report submitted to, or details of matters discussed at, a private meeting of the

DECEMBER 6, 2012

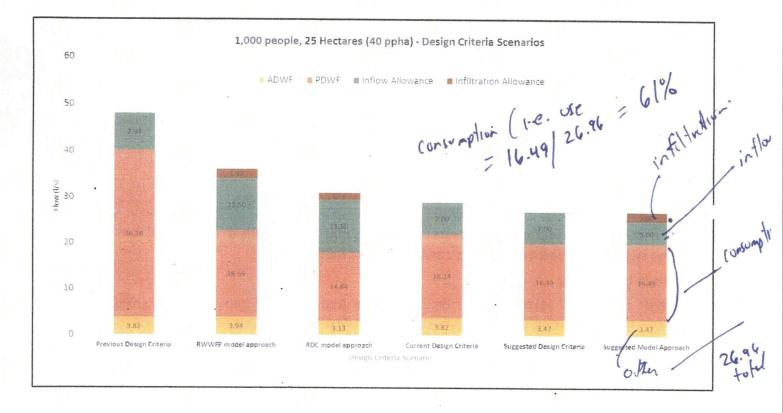
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HRM council Meetings public except for specific exceptions !!!

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The graph below shows the application of design criteria as it has changed over time and projects. It shows the resulting theoretical peak flows that are generated, based on the combination of the dry weather and wet weather flow components. It shows how the design criteria has reduced from before the RWWFP project to the current design criteria and lastly, the suggested approach. By using better available information over time and additional investigations into best practices, there is opportunity to decrease the design criteria.



The results from the criteria review and analysis are summarized below:

| Analysis                          |        | Flow Type  | Per Capita Sanitary Flow<br>(L/cap/d) | Range                  | I/I (L/s/ha)   | Range       |
|-----------------------------------|--------|--|---------------------------------------|------------------------|----------------|-------------|
| MAATE Flaw Trand                  | 2013   | Contraction of the second  | 274                                   | 250 - 292              |                |             |
| WWTF Flow Trend<br>(May- October) | 2014   | Dry Weather Flow   | 261 .                                 | 237 - 281<br>247 - 339 | -              | -           |
| (may- october)                    | 2015   |  | 283                                   |                        |                |             |
| Billing Data (Reside              | ntial) | Consumption  | 206                                   | 107 - 319              | 100 - <u>-</u> | Can de la   |
| Catchment Flow                    |        | Sanitary Flow  | 208                                   | 84 - 533               | 0.52           | 0.19 - 1.18 |
| Industry Best Practic             | ce     | Sanitary Flow Criteria   | 286                                   | 240 - 345              | 0.22           | 0.10 - 0.40 |
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## Halifax Water - Regional Development Charges Analysis Cost to build new capacity, versus cost of conserving capacity

201,178 population growth

|  | Drog   | essive  | litres/person  | Population  |   |   | N 6                      |   |
|--|--|---|--|---|---|---|--------------------------|---|
| Year   | Annu   |   | per day H2O use  | Beginning   | New Year  | Incremental   | New Capacity<br>litres   | M3/day  |
| -1   | decre  |   | 320.0  |   | Growth  | Population  | lities                   | Ινιο/ αάγ   |
| 13 CT 71   | 1  | -1.50%  |  |   | 6,706   | 6,706   | 2,113,710                | 2,114   |
|  | 2  | -1.50%  |  |   | 6,706   | 13,412  | 4,164,009                | 4,164   |
|  | 3  | -1.50%  |  |   | 6,706   | 20,118  | 6,152,323                | 6,152   |
|  | 4  | -1.50%  |  |   | 6,706   | 26,824  | 8,080,051                | 8,080   |
|  | 5  | -1.50%  |  |   | 6,706   | 33,530  | 9,948,563                | 9,949   |
|  | 6  | -1.50%  |  |   | 6,706   | 40,236  | 11,759,202               | 11,759  |
|  | 7  | -1.50%  |  |   | 6,706   | 46,942  | 13,513,283               | 13,513  |
|  | 8  | -1.50%  |  |   | 6,706   | 53,647  | 15,212,095               | 15,212  |
|  | 9  | -1.50%  |  |   | 6,706   | 60,353  | 16,856,903               | 16,857  |
|  | 10   | -1.50%  |  |   | 6,706   | 67,059  | 18,448,944               | 18,449  |
|  | 11   | 0.00%   |  |   | 6,706   | 73,765  | 20,293,839               | 20,294  |
|  | 12<br>13   | 0.00%   |  |   | 6,706   | 80,471  | 22,138,733               | 22,139  |
|  | 14   | 0.00%   |  |   | 6,706   | 87,177  | 23,983,627               | 23,984  |
|  | 15   | 0.00%   |  | 87,177  | 6,706   | 93,883  | 25,828,522               | 25,829  |
|  | 16   | 0.00%   |  |   | 6,706   | 100,589   | 27,673,416               | 27,673  |
|  | 17   | 0.00%   |  | 100,589   | 6,706   | 107,295   | 29,518,311               | 29,518  |
|  | 18   |   |  | 107,295   | 6,706   | 114,001   | 31,363,205               | 31,363  |
|  |  | 0.00%   | 275.1  | 114,001   | 6,706   | 120,707   | 33,208,099               | 33,208  |
|  | 19   | 0.00%   | 275.1  | 120,707   | 6,706   | 127,413   | 35,052,994               | 35,053  |
|  | 20<br>21   | 0.00%   | 275.1  | 127,413   | 6,706   | 134,119   | 36,897,888               | 36,898  |
|  |  | 0.00%   | 275.1  | 134,119   | 6,706   | 140,825   | 38,742,783               | 38,743  |
|  | 22   | 0.00%   | 275.1  | 140,825   | 6,706   | 147,531   | 40,587,677               | 40,588  |
|  | 23   | 0.00%   | 275.1  | 147,531   | 6,706   | 154,236   | 42,432,571               | 42,433  |
|  | 24   | 0.00%   | 275.1  | 154,236   | 6,706   | 160,942   | 44,277,466               | 44,277  |
|  | 25   | 0.00%   | 275.1  | 160,942   | 6,706   | 167,648   | 46,122,360               | 46,122  |
|  | 26   | 0.00%   | 275.1  | 167,648   | 6,706   | 174,354   | 47,967,255               | 47,967  |
|  | 27   | 0.00%   | 275.1  | 174,354   | 6,706   | 181,060   | 49,812,149               | 49,812  |
|  | 28   | 0.00%   | 275.1  | 181,060   | 6,706   | 187,766   | 51,657,043               | 51,657  |
|  | 29   | 0.00%   |  |   |   |   |                          |   |
|  |  |   | 275.1  | 187,766   | 6,706   | 194,472   | 53,501,938               | 53,502  |
| Max/endin  | 30   | 0.00%   | 275.1  | 187,766<br>194,472  | 6,706   | 194,472<br>201,178  | 53,501,938<br>55,346,832 | 55,347  |
|  | ng New capa  | 0.00%<br>acity  |  | 194,472   | 6,706<br>201,178  | 201,178   |                          | 55,347<br>55,347  |
|  |  | 0.00%<br>acity  |  | 194,472   | 6,706   | 201,178   |                          | 55,347<br>55,347  |
|  | ng New capa  | 0.00%<br>acity  |  | 194,472   | 6,706<br>201,178  | 201,178   |                          | 55,347<br>55,347<br>Per M3 new capac                              |
| Developm   | ng New capa  | 0.00%<br>acity  |  | 194,472<br>Cost per M3 - Upgra  | 6,706<br>201,178  | 201,178<br>levelopment  |                          | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94              |
| Developm   | ng New capa  | 0.00%<br>acity  |  | 194,472<br>Cost per M3 - Upgra<br>Sewer   | 6,706<br>201,178  | 201,178<br>levelopment<br>\$ 607,317,707  |                          | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm   | ng New capa  | 0.00%<br>acity  |  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water  | 6,706<br>201,178  | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934   |                          | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm   | ng New capa  | 0.00%<br>acity  |  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total   | 6,706<br>201,178  | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641   |                          | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm   | ng New capa  | 0.00%<br>acity  |  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth  | 6,706<br>201,178  | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178  |                          | 55,347<br>55,347<br>Per M3 new capad<br>\$ 10,972.94<br>\$ 485.03 |
| Developm   | ng New capa  | 0.00%<br>acity  |  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person  | 6,706<br>201,178  | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25   |                          | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm   | ng New capa  | 0.00%<br>acity  |  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house  | 6,706<br>201,178  | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40   |                          | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| <u>Developm</u><br>Program/It  | ng New capa<br>nent Caused<br>tem  | 0.00%<br>acity<br>I <u>Costs :</u>  | 275.1  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house  | 6,706<br>201,178<br>ades Required for new d   | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40   |                          | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| <u>Developm</u><br>Program/It  | ng New capa  | 0.00%<br>acity<br>I <u>Costs :</u>  |  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320   | 6,706<br>201,178<br>ades Required for new o   | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40   |                          | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| <u>Developm</u><br>Program/It  | ng New capa<br>nent Caused<br>tem  | 0.00%<br>acity<br>I <u>Costs :</u>  | 275.1  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house  | 6,706<br>201,178<br>ades Required for new d   | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40   |                          | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| <u>Developm</u><br>Program/It  | ng New capa<br>nent Caused<br>tem  | 0.00%<br>acity<br>I <u>Costs :</u>  | 275.1  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>Cost per house<br>320<br>3.35   | 6,706<br>201,178<br>ades Required for new of<br>itres/person/day<br>people / house  | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39  |                          | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It   | ng New capa<br>nent Caused<br>tem  | 0.00%<br>acity<br>I <u>Costs :</u>  | 275.1  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072  | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption   | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water                         | 55,346,832               | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It   | ng New capa<br>nent Caused<br>tem  | 0.00%<br>acity<br>I <u>Costs :</u>  | 275.1  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%   | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of  | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water                         | 55,346,832               | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It   | ng New capa<br>nent Caused<br>tem  | 0.00%<br>acity<br>I <u>Costs :</u>  | 275.1  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%<br>322  | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of<br>litres/day  | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water                         | 55,346,832               | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It   | ng New capa<br>nent Caused<br>tem  | 0.00%<br>acity<br>I <u>Costs :</u>  | 275.1  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%<br>322  | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of  | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water                         | 55,346,832               | 55,347<br>55,347<br>Per M3 new capad<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It   | ng New capa<br>nent Caused<br>tem  | 0.00%<br>acity<br>I <u>Costs :</u>  | 275.1  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%<br>322  | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of<br>litres/day  | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water                         | 55,346,832               | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It<br>Conservati   | ng New cap<br>eent Caused<br>tem<br>ion program  | 0.00%<br>acity<br>I <u>Costs :</u>  | 275.1  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%<br>322<br>0.32  | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of<br>litres/day<br>M/day<br>Scenario 2                         | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water                         | 55,346,832               | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It<br>Conservation<br>Cost of Comper house                                   | ng New cap<br>eent Caused<br>tem<br>ion program  | 0.00%<br>acity<br>Costs :<br>n :  | "Typical House"  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%<br>322<br>0.32<br>Scenario 1<br>\$ 500                                  | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of<br>litres/day<br>M/day<br>Scenario 2<br>\$ 1,000             | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water                         | 55,346,832               | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It<br>Conservation<br>Cost of Comper house                                   | ng New cap<br>eent Caused<br>tem<br>ion program  | 0.00%<br>acity<br>Costs :<br>n :  | "Typical House"  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%<br>322<br>0.32  | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of<br>litres/day<br>M/day<br>Scenario 2<br>\$ 1,000             | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water                         | 55,346,832               | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It<br>Conservation<br>Cost of Comper house                                   | ng New cap<br>eent Caused<br>tem<br>ion program  | 0.00%<br>acity<br>Costs :<br>n :  | "Typical House"  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%<br>322<br>0.32<br>Scenario 1<br>\$ 500                                  | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of<br>litres/day<br>M/day<br>Scenario 2<br>\$ 1,000             | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water                         | 55,346,832               | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It<br>Conservation<br>Conservation<br>Cost of Con<br>per house<br>Cakiculate | ng New cap<br>eent Caused<br>tem<br>ion program<br>ion program<br>inservation<br>ed cost per l | 0.00%<br>acity<br>I Costs :<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>I<br>Doctor<br>I<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>Doctor<br>I<br>I<br>Doctor<br>I<br>I<br>I<br>Doctor<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I                              | "Typical House"  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%<br>322<br>0.32<br>Scenario 1<br>\$ 500                                  | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of<br>litres/day<br>M/day<br>Scenario 2<br>\$ 1,000             | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water<br>conservation program | 55,346,832               | 55,347<br>55,347<br>Per M3 new capad<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It<br>Conservation<br>Cost of Con<br>per house<br>Cakiculate                 | ng New cap<br>eent Caused<br>tem<br>ion program<br>ion program<br>inservation<br>ed cost per l | 0.00%<br>acity<br>I Costs :<br>I Co | "Typical House"  | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%<br>322<br>0.32<br>Scenario 1<br>\$ 500<br>\$ 1,555                      | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of<br>litres/day<br>M/day<br>Scenario 2<br>\$ 1,000<br>\$ 3,109 | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water<br>conservation program | 55,346,832               | 55,347<br>55,347<br>Per M3 new capad<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It<br>Conservation<br>Cost of Con<br>per house<br>Cakiculate                 | ng New cap<br>eent Caused<br>tem<br>ion program<br>ion program<br>inservation<br>ed cost per l | 0.00%<br>acity<br>I Costs :<br>I Costs :<br>I Costs :<br>I Costs :<br>M3 Capac  | 275.1<br>"Typical House"<br>ity saved<br>Litres/day            | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%<br>322<br>0.32<br>Scenario 1<br>\$ 500<br>\$ 1,555                      | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of<br>litres/day<br>M/day<br>Scenario 2<br>\$ 1,000<br>\$ 3,109 | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water<br>conservation program | 55,346,832               | 55,347<br>55,347<br>Per M3 new capad<br>\$ 10,972.94<br>\$ 485.03 |
| Developm<br>Program/It<br>Conservation<br>Cost of Comper house                                   | ng New cap<br>eent Caused<br>tem<br>ion program<br>ion program<br>inservation<br>ed cost per l | 0.00%<br>acity<br>I Costs :<br>I Costs :<br>I Costs :<br>I Costs :<br>M3 Capac  | 275.1<br>"Typical House"<br>ity saved<br>Litres/day<br>Cost/M3 | 194,472<br>Cost per M3 - Upgra<br>Sewer<br>Water<br>Total<br>Population Growth<br>Per Person<br>People per house<br>Cost per house<br>320<br>3.35<br>1,072<br>30%<br>322<br>0.32<br>Scenario 1<br>\$ 500<br>\$ 1,555<br>322<br>\$ 2.80000 | 6,706<br>201,178<br>ades Required for new of<br>litres/person/day<br>people / house<br>litres/day consumption<br>reduction possible via of<br>litres/day<br>M/day<br>Scenario 2<br>\$ 1,000<br>\$ 3,109 | 201,178<br>levelopment<br>\$ 607,317,707<br>\$ 26,844,934<br>\$ 634,162,641<br>201,178<br>\$ 3,152.25<br>2.40<br>\$ 7,565.39<br>per Halifax Water<br>conservation program | 55,346,832               | 55,347<br>55,347<br>Per M3 new capac<br>\$ 10,972.94<br>\$ 485.03 |