

November 27, 2017



Dear :

Re: Your request for access to information under Part II of the *Access to Information and Protection of Privacy Act* [Our File #: SNL-095-2017]

On November 7, 2017, Service NL received your request for access to the following records/information:

"Please provide any and all emails, documentation and correspondence related to the Mobile High School Extension Project within Service NL and between Service NL and the Department of Transportation and Works and/or Department of Education and Early Childhood Development from the period September 1, 2017 up to and including today."

I hereby inform you that a decision has been made by Service NL to provide access to the requested information. The attached documents comprise the records that Service NL has concerning the Mobile High School Extension Project. You may wish to follow up with the Department of Transportation and Works for additional information on the project.

Please be advised that you may ask the Information and Privacy Commissioner to review the processing of your access request, as set out in section 42 of the *Access to Information and Protection of Privacy Act* (the Act). A request to the Commissioner must be made in writing within 15 business days of the date of this letter or within a longer period that may be allowed by the Commissioner. The address and contact information of the Information and Privacy Commissioner is as follows:

Office of the Information and Privacy Commissioner
2 Canada Drive
P. O. Box 13004, Stn. A
St. John's, NL. A1B 3V8

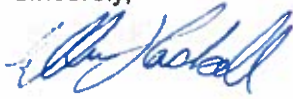
Telephone: (709) 729-6309
Toll-Free: 1-877-729-6309
Facsimile: (709) 729-6500

You may also appeal directly to the Supreme Court Trial Division within 15 business days after you receive the decision of the public body, pursuant to section 52 of the Act.

Please be advised that responsive records will be published following a 72 hour period after the response is sent electronically to you or five business days in the case where records are mailed to you. It is the goal to have the responsive records posted to the Completed Access to Information Requests website within one business day following the applicable period of time. Please note that requests for personal information will not be posted online.

If you have any further questions, please feel free to contact me by telephone at 709-729-7437 or by email at ellenhaskell@gov.nl.ca.

Sincerely,



ELLEN HASKELL
ATIPP Coordinator

Haskell, Ellen

From: Dawe, Paula V
Sent: Tuesday, October 10, 2017 3:20 PM
To: Jardine, Thomas
Cc: Spracklin, Deneen
Subject: RE: Mobile Septic System Flow Rates

Tom,

I would add 20% to what they are asking to be conservative- so 60 L/p/d. I wouldn't do this regularly, but if the proponent can make a good case (as they have done here), we can allow for some variation.

Paula Dawe, P.Eng.
Manager
Drinking Water & Wastewater Section, Dam Safety Program

From: Jardine, Thomas
Sent: Tuesday, October 10, 2017 2:52 PM
To: Dawe, Paula V
Subject: FW: Mobile Septic System Flow Rates

Hi Paula,

Do you have any objections in allowing a reduction in calculated flow rate based on the explanation given below.

Regards,

Tom Jardine B.Eng.

Service NL
Government of Newfoundland and Labrador
Engineering and Inspection Services
Motor Registration Building
149 Smallwood Drive
Mount Pearl, NL A1N 1B5
thomasjardine@gov.nl.ca
t: 709.729.5537 f: 709.729.2071
www.servicenl.gov.nl.ca

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From: Phillips, Chad
Sent: Tuesday, October 10, 2017 2:43 PM
To: Jardine, Thomas
Subject: RE: Mobile Septic System Flow Rates

Hi Tom,

Attached are snapshots received from the school district showing the flow data for Mobile. They had tried to trend the data and export to an excel file but were unable to, but were able to provide these pictures of the data as is recorded on the local terminal unit at the school. The peak demand is what we used for our calculations, converted from gallons per hour to litres per minute.

Chad

From: Jardine, Thomas
Sent: Tuesday, October 10, 2017 2:38 PM
To: Phillips, Chad
Subject: RE: Mobile Septic System Flow Rates

Hi Chad,

Are you able to provide me with the monitored flow data from the school.

Thank you,

Tom

From: Phillips, Chad
Sent: Tuesday, October 10, 2017 1:49 PM
To: Jardine, Thomas; Henstridge, Wendy
Cc: Kieley, Kim; Reid, Lisa
Subject: Mobile Septic System Flow Rates

Good afternoon Tom,

Below are calculations we have come up with to try and determine an acceptable sewage flow rate that can be used to size the septic system for the extension at Mobile Central High. Please review and advise if the flow rate we have come up with would be acceptable by Service NL. Thanks.

Mobile Central High currently services approx. 300 students. An extension is being designed which will increase the school population to 525 students. The current septic system is not of adequate size to service the increase in school population. Therefore it is required to be upgraded or replaced.

The Private Sewage Disposal and Water Supply Standards state that septic systems for schools should be based on a usage of 115 litres per person per day. Using these guidelines, the septic system would be sized as follows:

Population	Daily Sewage Flow (L)	Septic Tank (L)	Septic Field Size (m)*
300 students	34,500	51,750	1,200
525 students	60,375	90,562	2,100

*Septic field sized based on equation $L=0.011*Q*VT$, where T is the estimated percolation time of 10 minutes.

The existing septic system was not designed using tabular data, but rather designed using data of flow rates obtained from the existing well which serviced the old Mobile school (replaced in 2008). The school was designed using a sewage flow of 10,667 L/day or 36 L/person/day that resulted in a septic tank sized of 16,000 L, which was far below guidelines. The existing system has been in place and working well for the past 9 years, during which NLESD has not reported any issues. The operation of the system is a good indication that it is indeed working well and the design method chosen was adequate. Due to the increase in enrolment anticipated for the new extension, and based on the proven sewage flow per person of 36 L/person/day for the existing system, expected sewage flows would be approx. 18,666 L/day, requiring a septic tank of 27,998 L.

Potable water flow at the school has been monitored and recorded via controls. Recorded data indicates an average usage of potable water to be 3,800 L/day, which is well below the Private Sewage Disposal and Water supply standards. This gives an average demand of 2.64 L/min. Peak demands of 10.22 L/min have been recorded at the school. Since there is no process water at the school, the water for sanitary purposes is potable, hence the potable water flow can be assumed to be equal to the design septic tank flow.

Using a peak demand of 10.22 L/min, it is calculated a max sewage flow of 14,717 L/day. Based on the current population of 300 students, this gives us a usage of 49.06 L/person/day. Based on the future student population of 525 students, we anticipate a daily sewage flow rate of 25,754 L/day. This new flow rate would then require a septic tank size of 38,632 L. The resulting septic field pipe length, using the same 10 minute percolation time, would then be required to be 895m.

Peak Demand (L/min)	Current Peak Daily Sewage Flow (L) for 300 Students	Per person Daily Sewage Flow (L/person/day)	Future Peak Daily Sewage Flow (L) for 525 Students	Anticipated Septic Tank Size (L)
10.22	14,717	49.06	25,754	38,632

Can Service NL please review the above and consider accepting the design flow rate for the school (including the 10 classroom extension) to be 50L/person/day.

Chad Phillips

Engineer II
 Dept. of Transportatiopn & Works
 Building Design & Construction Division
 (709) 729-1640
chadphillips@gov.nl.ca

Haskell, Ellen

From: Jardine, Thomas
Sent: Tuesday, October 10, 2017 2:52 PM
To: Dawe, Paula V
Subject: FW: Mobile Septic System Flow Rates
Attachments: IMG_20170602_092247.jpg; IMG_20170602_092259.jpg; IMG_20171005_101221_edit.jpg

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Tom Jardine B.Eng.

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Government of Newfoundland and Labrador
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Chad Phillips

Engineer II

Dept. of Transportatiopn & Works

Building Design & Construction Division

(709) 729-1640

chadphillips@gov.nl.ca

Potable Water Meter

(No potable wa



current demand 42 gal/hr

	usage	peak demand	time and date of peak
today	372 gal	54 gal/hr	11:59 PM 6/1/2017
previous day	844 gal	78 gal/hr	1:28 PM 6/1/2017
month-to-date	372 gal	54 gal/hr	11:59 PM 6/1/2017
previous month	28341 gal	84 gal/hr	4:19 PM 5/15/2017
year-to-date	133876 gal	96 gal/hr	10:01 PM 3/11/2017
previous year	327802 gal	162 gal/hr	10:36 AM 6/14/2016



recorded since 12:56 AM 5/21/2017

usage	peak demand	time and date of peak
day	54 gal/hr	11:59 PM 6/1/2017
previous day	78 gal/hr	1:28 PM 6/1/2017
month-to-date	54 gal/hr	11:59 PM 6/1/2017
previous month	84 gal/hr	4:19 PM 5/15/2017
year-to-date	96 gal/hr	10:01 PM 3/11/2017
previous year	162 gal/hr	10:36 AM 8/14/2016



Recorded since 12:56 AM 5/21/2017

	Usage	Peak demand	Min and date of peak
today	300 gal	54 gal/hr	11:59 PM 10/4/2017
previous day	220 gal	70 gal/hr	8:50 AM 10/4/2017
month-to-date	3174 gal	70 gal/hr	3:00 PM 10/2/2017
previous month	2823 gal	84 gal/hr	8:00 AM 9/13/2017
year-to-date	255700 gal	90 gal/hr	7:01 PM 3/11/2017
previous year	227000 gal	102 gal/hr	10:50 AM 8/14/2016