



New  
Westminster  
Schools

# **School District**

## **No. 40**

### **NEW WESTMINSTER**

# **2017**

## **CARBON NEUTRAL ACTION REPORT**

# OVERVIEW

## Executive Summary

The New Westminster School District is pleased to submit our Carbon Neutral Action Report for 2017. We have made, and continue to make, an ongoing commitment to continue reducing our energy consumption and GHG emissions by investing and focusing on key initiatives that integrate sustainability practices. The district strives to ensure that every effort is made to conserve energy and natural resources while maintaining sound financial management. We believe that each employee, student and school volunteer, should be encouraged to actively participate in district sustainability progress to the point that acting in a sustainable manner is “second nature” for everyone.

This year the District experienced an increase in emissions required for offsets as compared to 2016. This is a direct result of increasing our building footprint with the addition of Fraser River Middle School and, the Royal City Alternate Program (RCAP) which is made up of 5 portables. The additional square footage coupled with exceptionally cold winter has contributed to the overall increase in emissions.

New Westminster continues to be proud of our work toward achieving carbon neutrality with conscious and committed effort to support energy and natural resource conservation, despite enrolment growth demands throughout the community.

# DECLARATION STATEMENT

This Carbon Neutral Action Report for the period January 1<sup>st</sup>, 2017 to December 31<sup>st</sup>, 2017 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2017 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2018 and beyond.

# **EMISSIONS REDUCTION ACTIVITIES**

We continue to utilize energy management software on computers and to manage default duplex printing on print devices. We have increased scanning access on all photocopiers and our school sites are using re-cycled newsprint. The district has initiated an energy management program district wide.

The District has implemented fuel combustion and electrical reductions on five schools following our ten year capital plan. This included electrical upgrades with motion detectors, retrofitted to LED lighting and DDC upgrades. Installed new condensing boilers, new unit ventilators and new automated controls. With the re-roofing at three elementary schools and a seismic upgrade at one elementary school we greatly reduced heating costs due to less heat loss.

Converted electricity to natural gas at a newly acquired portable complex on site at our RCAP location.

We are implementing An Energy Management Program and plan to reduce gas emissions by introducing a DDC program and installing HVAC equipment upgrades. We plan to re-commission our mechanical systems at all schools on our ten year school renewal plan. The school district is implementing a vehicle replacement program that will replace current vehicles with smaller more efficient models. To reduce paper emissions, the district is encouraging the staff to use electronic messages and to use re-cycled paper.

The District built a replacement elementary school achieving LEED Canada Gold in July 2017. Complete building a new middle school and in the process to completing the requirements for LEED Canada Gold.

We continue to support New Westminster students and employees in their efforts to be energy efficient.

<b>School District #40 GHG Emissions and Offset for 2017 (tCO<sub>2</sub>e)</b>	
<b>GHG Emissions created in Calendar Year</b>	
Total Emissions (tCO <sub>2</sub> e)	1920
Total Offsets (tCO <sub>2</sub> e)	1917
<b>Adjustments to GHG Emissions Reported in Prior Years</b>	
Total Emissions (tCO <sub>2</sub> e)	0
Total Offsets (tCO <sub>2</sub> e)	0
<b>Grand Total Offsets for the 2017 Reporting Year</b>	
Grand Total Offsets (tCO <sub>2</sub> e)	1917

**Retirement of Offsets:**

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, School District #40 is responsible for arranging for the retirement of the offsets obligation reported above for the 2017 calendar year, together with any adjustments reported for past calendar years. The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy ensuring that these offsets are retired on the Organization's behalf, the Organization will pay within 30 days, the associated invoice to be issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.

**Executive sign-off:**



May 9 / 18

Signature

Date

Kevin Lorenz

Secretary Treasurer

Name (please print)

Title



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April 23, 2018

Reporting Unit:

School District 40 - New Westminster Show Report

Welcome Mary Luccock

These are the School District 40 - New Westminster GHG Emissions and Offsets (tCO<sub>2</sub>e)\* for Reporting Year 2017, as of April 23, 2018

GHG's created in Calendar Year 2017

Total Emissions	Total Offsets	
1,920	1,917	<a href="#">View Reports</a>

Adjustments to GHG's Reported in Prior Years

Total Emissions	Total Offsets	
0	0	<a href="#">View Event Log</a>

Grand Total Offset for the 2017 Reporting Year

This is the total of emissions that require offset purchases for Reporting Year 2017

Grand Total Offsets  
1,917

\*Each greenhouse gas has been converted to a standard measurement (tCO<sub>2</sub>e) by multiplying its emissions by its global warming potential (GWP). The Totals for tCO<sub>2</sub>e are shown here rounded to the nearest whole metric tonne as only whole tonnes of tCO<sub>2</sub>e can be purchased for offsets.

# Greenhouse Gas Emissions

- 2017 Greenhouse Gas (GHG) Emissions: 1917 tonnes of CO<sub>2</sub> e

	Emissions Reported in 2016	Emissions Reported in 2017
Total Emissions	1658	1920
Emissions for offsets	1655	1917

The following chart gives a detailed comparison of the Greenhouse Emissions for New Westminster School district's calendar 2016 to 2017.

<i>Emission Source</i>	<i>2016 (tCO<sub>2</sub>e)</i>	<i>2017 (tCO<sub>2</sub>e)</i>	<i>2016 vs 2017</i>
<i>Buildings</i>			
<i>Electricity</i>	43.9	44.80	
<i>Natural Gas &amp; Propane</i>	1423.46	1685.91	+263.35
<i>Fleet -Mobile</i>	95.6	92.43	-3.17
<i>Office Paper</i>	94.98	96.61	+1.63
<b>Total Emissions</b>	<b>1657.94</b>	<b>1919.75</b>	<b>+261.81</b>





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## SMARTTool Greenhouse Gas Inventory Report

Reporting Entity: School District 40 - New Westminster

Reporting Year: Calendar Year 2017

		Greenhouse Gases in Tonnes				
Measure	Quantity	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	tCO <sub>2</sub> e <sup>1</sup>	
<b>Scope 1 (Direct) Emissions</b>						
Mobile Combustion (Fleet)	Litres	37,062.20	83.53	0.01	0.02	89.50
Stationary Combustion, Estimated <sup>2</sup>	GigaJoules	449.78	22.30	0.00	0.00	22.43
Stationary Combustion, Reported <sup>3</sup>	GigaJoules	33,246.06	1,651.28	0.03	0.03	1,661.31
<b>Total Scope 1 Emissions</b>			<b>1,757.11</b>	<b>0.04</b>	<b>0.05</b>	<b>1,773.25</b>
<b>Scope 2 (Indirect) Emissions</b>						
Purchased Energy, Estimated <sup>2</sup>	GigaJoules	212.55	0.64	0.00	0.00	0.64
Purchased Energy, Reported <sup>3</sup>	GigaJoules	14,933.21	44.80	0.00	0.00	44.80
<b>Total Scope 2 Emissions</b>			<b>45.44</b>	<b>0.00</b>	<b>0.00</b>	<b>45.44</b>
<b>Scope 3 Emissions</b>						
<b>Business Travel and Office Paper</b>						
Office Paper	Packages	14,913.00	96.61	0.00	0.00	96.61
<b>Total Scope 3 Emissions</b>			<b>96.61</b>	<b>0.00</b>	<b>0.00</b>	<b>96.61</b>
<b>Emissions from Biomass</b>						
<b>Total Biomass Emissions</b>			<b>2.92</b>	<b>0.00</b>	<b>0.00</b>	<b>2.92</b>
<b>Total Emissions, Calendar Year 2017</b>			<b>1,902.07</b>	<b>0.04</b>	<b>0.05</b>	<b>1,918.21</b>

1. Global Warming Potential (GWP) has been applied only to the tCO<sub>2</sub>e values.

2. Estimated data has been calculated based on the methods described in the Methodology Document.

3. Reported data refers to consumption which has been directly billed to the organization.

*This information is provided by the Government of British Columbia, and is subject to verification.*



Reports

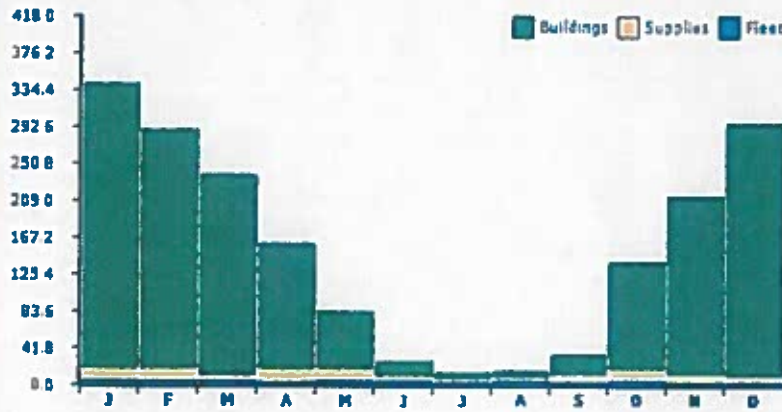
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May 1, 2018

Reporting Unit:

School District 40 - New Westminster Calendar Year 2017 Show Report

**Total Emissions  
Calendar Year 2017  
School District 40 - New Westminster**

Metric tonnes  
CO2 equivalent: (tCO2e)



Click on the bars to view data for each month

**Totals Calendar Year 2017, School District 40 - New Westminster**

Greenhouse Gases in Tonnes

	Measure	Quantity	CO <sub>2</sub>	BioCO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	tCO <sub>2</sub> e <sup>1</sup>
<b>Scope 1 (Direct) Emissions</b>							
Mobile Combustion (Fleet)	Litres	37,062.20	83.53	2.92	0.01	0.02	92.43
Stationary Combustion, Estimated <sup>2</sup>	GigaJoules	493.19	24.45	0.00	0.00	0.00	24.60
Stationary Combustion, Reported <sup>3</sup>	GigaJoules	33,246.06	1,651.28	0.00	0.03	0.03	1,661.31
<b>Scope 2 (Indirect) Emissions</b>							
Purchased Energy, Estimated <sup>2</sup>	GigaJoules	212.55	0.64	0.00	0.00	0.00	0.64
Purchased Energy, Reported <sup>3</sup>	GigaJoules	14,933.21	44.80	0.00	0.00	0.00	44.80
<b>Scope 3 (Business Travel and Office Paper) Emissions</b>							
Office Paper	Packages	14,913.00	96.61	0.00	0.00	0.00	96.61
<b>Total Emissions, Calendar Year 2017</b>			<b>1,901.30</b>	<b>2.92</b>	<b>0.04</b>	<b>0.05</b>	<b>1,920</b>
<b>Carbon Neutral or Offset Exempt</b>			<b>0.00</b>	<b>2.92</b>	<b>0.00</b>	<b>0.00</b>	<b>3</b>
<b>Total for Offsets<sup>4</sup></b>			<b>1,901.30</b>	<b>0.00</b>	<b>0.04</b>	<b>0.05</b>	<b>1,917</b>

Each greenhouse gas has been converted to a standard measurement (tCO<sub>2</sub>e) by multiplying its emissions by its global warming potential (GWP). The GWP of carbon dioxide (CO<sub>2</sub>) from both anthropogenic and biogenic sources is 1, methane (CH<sub>4</sub>) is 25, and nitrous oxide (N<sub>2</sub>O) is 298. The Totals for tCO<sub>2</sub>e are shown here rounded to the nearest whole metric tonne as only whole tonnes of tCO<sub>2</sub>e can be purchased for offsets

2. Estimated data has been calculated based on the methods described in the Methodology Document.

3. Reported data refers to consumption which has been directly billed to the organization.

4. The tCO<sub>2</sub>e value from the "Total for Offsets" line represents the quantity of offset purchases required to become carbon neutral.





Reports

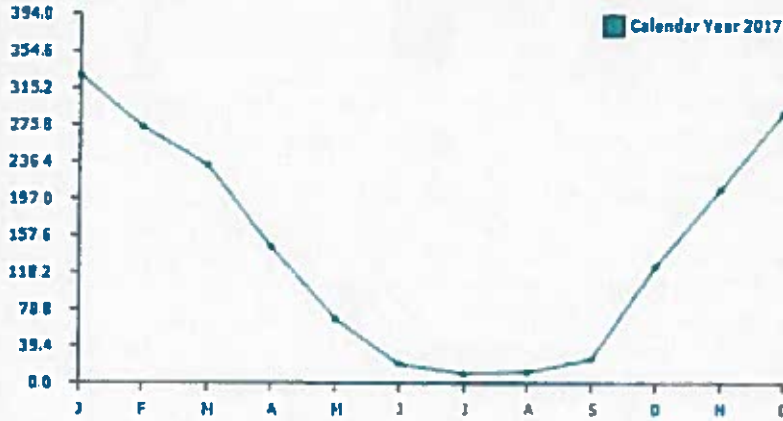
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Reporting Unit:

School District 40 - New Westminster | Calendar Year 2017 | Show Report

**Emissions from Buildings**  
**Calendar Year 2017**  
**School District 40 - New Westminster**

Metric tonnes  
CO2 equivalent (tCO2e)



Click on the points to view data for each month

**Emissions from Buildings Calendar Year 2017, School District 40 - New Westminster**

Reporting Unit	Fuel Type	Energy (GJ)	Greenhouse Gases in Tonnes			
			CO <sub>2</sub>	BioCO <sub>2</sub>	CH <sub>4</sub> N <sub>2</sub> O	tCO <sub>2</sub> e <sup>1</sup>
School District 40 - New Westminster	Electricity	14,933.21	44.80	0.00	0.00 0.00	44.80
	Electricity Estimate	212.55	0.64	0.00	0.00 0.00	0.64
	Natural Gas	32,960.21	1,634.17	0.00	0.03 0.03	1,643.83
	Natural Gas Estimate	493.19	24.45	0.00	0.00 0.00	24.60
	Propane Gas	285.85	17.11	0.00	0.00 0.00	17.48
		<b>48,885.02</b>	<b>1,721.17</b>	<b>0.00</b>	<b>0.03 0.03</b>	<b>1,731.35</b>
<b>Total Emissions, Calendar Year 2017</b>		<b>48,885.02</b>	<b>1,721.17</b>	<b>0.00</b>	<b>0.03 0.03</b>	<b>1,731</b>
<b>Carbon Neutral or Offset Exempt</b>			<b>0.00</b>	<b>0.00</b>	<b>0.00 0.00</b>	<b>0</b>
<b>Total for Offsets<sup>4</sup></b>			<b>1,721.17</b>	<b>0.00</b>	<b>0.03 0.03</b>	<b>1,731</b>

Each greenhouse gas has been converted to a standard measurement (tCO<sub>2</sub>e) by multiplying its emissions by its global warming potential (GWP). The GWP of carbon dioxide (CO<sub>2</sub>) from both anthropogenic and biogenic sources is 1, methane (CH<sub>4</sub>) is 25, and nitrous oxide (N<sub>2</sub>O) is 298. The Totals for tCO<sub>2</sub>e are shown here rounded to the nearest whole metric tonne as only whole tonnes of tCO<sub>2</sub>e can be purchased for offsets.

2. Estimated data has been calculated based on the methods described in the Methodology Document.

3. Reported data refers to consumption which has been directly billed to the organization.

4. The tCO<sub>2</sub>e value from the "Total for Offsets" line represents the quantity of offset purchases required to become carbon neutral.



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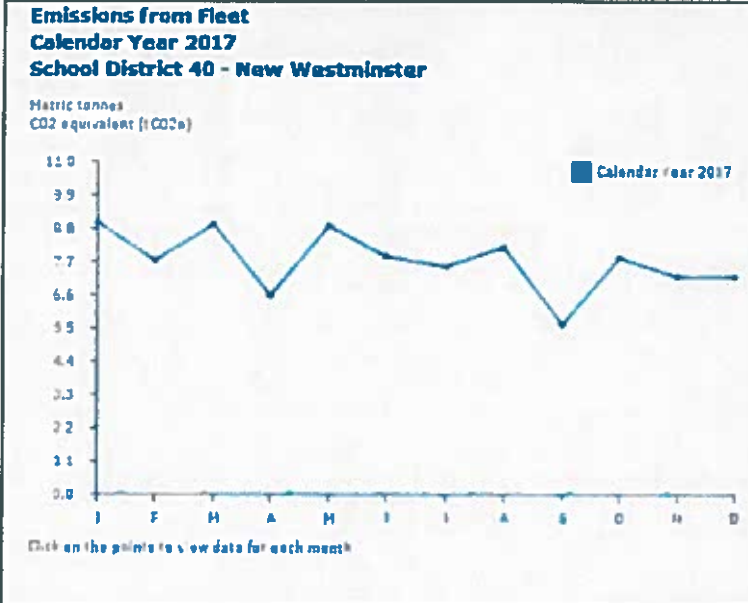
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February 23, 2018

Reporting Unit:

School District 40 - New Westminster Calendar Year 2017 Show Report



### Mobile Combustion Calendar Year 2017, School District 40 - New Westminster

Reporting Unit	Fuel Type	Volume (L)	Greenhouse Gases in Tonnes				tCO <sub>2e</sub> <sup>1</sup>
			CO <sub>2</sub>	BiCO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	
School District 40 - New Westminster	Light Duty Trucks/SUV's, minivans, full-size vans and pickup trucks						
	Diesel	1,528.50	3.95	0.15	0.00	0.00	4.20
	Gasoline	31,843.00	70.05	2.40	0.01	0.02	78.15
		<b>33,371.50</b>	<b>74.00</b>	<b>2.55</b>	<b>0.01</b>	<b>0.02</b>	<b>82.35</b>
	Heavy Duty Road vehicles with a gross vehicle weight rating (GVWR) over 3900 Kg (8600 lbs)						
	Diesel	3,890.70	9.53	0.37	0.00	0.00	10.07
		<b>3,890.70</b>	<b>9.53</b>	<b>0.37</b>	<b>0.00</b>	<b>0.00</b>	<b>10.07</b>
		<b>37,062.20</b>	<b>83.53</b>	<b>2.92</b>	<b>0.01</b>	<b>0.02</b>	<b>92.43</b>
<b>Total Emissions, Calendar Year 2017</b>		<b>37,062.20</b>	<b>83.53</b>	<b>2.92</b>	<b>0.01</b>	<b>0.02</b>	<b>92</b>
<b>Carbon Neutral or Offset Exempt</b>			<b>0.00</b>	<b>2.92</b>	<b>0.00</b>	<b>0.00</b>	<b>3</b>
<b>Total for Offsets<sup>4</sup></b>			<b>83.53</b>	<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>90</b>

Each greenhouse gas has been converted to a standard measurement (tCO<sub>2e</sub>) by multiplying its emissions by its global warming potential (GWP). The GWP of carbon dioxide (CO<sub>2</sub>) from both anthropogenic and biogenic sources is 1, methane (CH<sub>4</sub>) is 25, and nitrous oxide (N<sub>2</sub>O) is 298. The Totals for tCO<sub>2e</sub> are shown here rounded to the nearest whole metric tonne as only whole tonnes of tCO<sub>2e</sub> can be purchased for offsets.

2 Estimated data has been calculated based on the methods described in the Methodology Document.

3 Reported data refers to consumption which has been directly billed to the organization.

4 The tCO<sub>2e</sub> value from the "Total for Offsets" line represents the quantity of offset purchases required to become carbon neutral.

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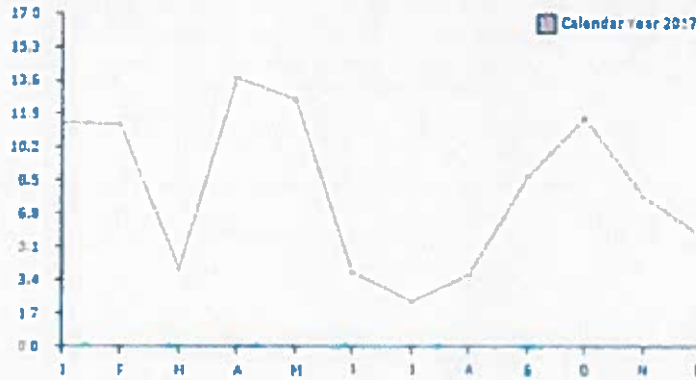
February 23, 2018

Reporting Unit:

School District 40 - New Westminster Calendar Year 2017 Show Report

**Emissions from Office Supplies**  
**Calendar Year 2017**  
**School District 40 - New Westminster**

Historic trends  
 CO2 equivalent (tCO2e)



Click on the points to view data for each month

**Office Supplies Calendar Year 2017, School District 40 - New Westminster**

Reporting Unit	Supply Type	Quantity (PKG)	Greenhouse Gases in Tonnes					
			CO <sub>2</sub>	BiCO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	tCO <sub>2</sub> e <sup>1</sup>	
School District 40 - New Westminster	8 5 x 11 Paper8 5 x 11 (letter) 20 lb bond paper All colours							
	0 %	12,810.00	81.44	0.00	0.00	0.00	81.44	
	30 %	1,417.00	8.01	0.00	0.00	0.00	8.01	
		14,227.00	89.45	0.00	0.00	0.00	89.45	
	8 5 x 14 Paper8 5 x 14 (legal) 20 lb bond paper All colours							
	0 %	210.00	1.70	0.00	0.00	0.00	1.70	
	30 %	101.00	0.73	0.00	0.00	0.00	0.73	
		311.00	2.43	0.00	0.00	0.00	2.43	
	11 x 17 Paper11 x 17 (ledger) 20 lb bond paper All colours							
	0 %	340.00	4.33	0.00	0.00	0.00	4.33	
	30 %	35.00	0.40	0.00	0.00	0.00	0.40	
		375.00	4.73	0.00	0.00	0.00	4.73	
		14,913.00	96.61	0.00	0.00	0.00	96.61	
<b>Total Emissions, Calendar Year 2017</b>			<b>14,913.00</b>	<b>96.61</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>97</b>
<b>Carbon Neutral or Offset Exempt</b>			<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>	
<b>Total for Offsets<sup>4</sup></b>			<b>96.61</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>97</b>	

Each greenhouse gas has been converted to a standard measurement (tCO<sub>2</sub>e) by multiplying its emissions by its global warming potential (GWP). The GWP of carbon dioxide (CO<sub>2</sub>) from both anthropogenic and biogenic sources is 1, methane (CH<sub>4</sub>) is 25, and nitrous oxide (N<sub>2</sub>O) is 298. The Totals for tCO<sub>2</sub>e are shown here rounded to the nearest whole metric tonne as only whole tonnes of tCO<sub>2</sub>e can be purchased for offsets.

2 Estimated data has been calculated based on the methods described in the Methodology Document.

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4 The tCO<sub>2</sub>e value from the "Total for Offsets" line represents the quantity of offset purchases required to become carbon neutral.



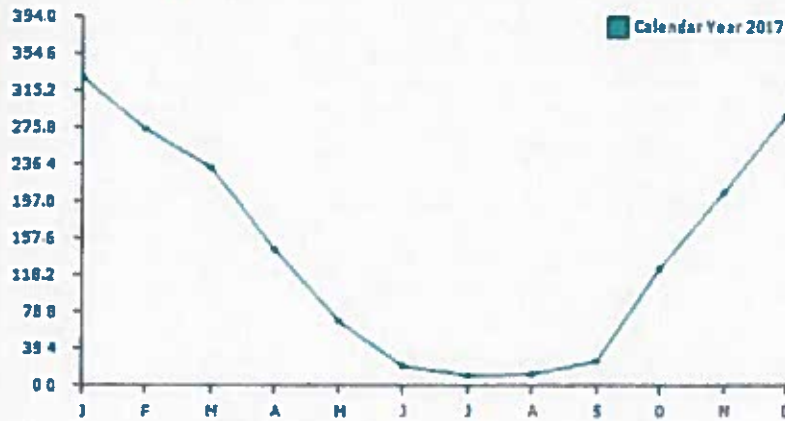
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May 2, 2018  
Reporting Unit:

Schools Calendar Year 2017 Show Report

**Emissions from Buildings  
Calendar Year 2017  
Schools**

Metric tonnes  
CO2 equivalent (tCO2e)



Click on the points to view data for each month

**Emissions from Buildings Calendar Year 2017, Schools**

Reporting Unit	Fuel Type	Energy (GJ)	Greenhouse Gases in Tonnes				
			CO <sub>2</sub>	Bioco <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O (CO <sub>2</sub> e <sup>1</sup> )	
Connaught Heights Elementary	Electricity	631.59	1.89	0.00	0.00	0.00	1.89
	Natural Gas	813.84	40.35	0.00	0.00	0.00	40.59
	Propane Gas	44.03	2.64	0.00	0.00	0.00	2.69
		<b>1,489.47</b>	<b>44.88</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>45.18</b>
Ecole QayQayt Elementary	Electricity	936.93	2.81	0.00	0.00	0.00	2.81
	Natural Gas	648.37	32.15	0.00	0.00	0.00	32.34
		<b>1,585.30</b>	<b>34.96</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>35.15</b>
F W Howay Elementary	Electricity	292.27	0.88	0.00	0.00	0.00	0.88
	Natural Gas	1,168.31	57.92	0.00	0.00	0.00	58.27
	Propane Gas	13.93	0.83	0.00	0.00	0.00	0.85
		<b>1,474.51</b>	<b>59.64</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>60.00</b>
Fraser River Middle School	Electricity	2,648.59	7.95	0.00	0.00	0.00	7.95
	Natural Gas	1,416.37	70.22	0.00	0.00	0.00	70.64
		<b>4,064.96</b>	<b>78.17</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>78.58</b>
Glenbrook Middle School	Electricity	719.91	2.16	0.00	0.00	0.00	2.16
	Natural Gas	1,490.06	73.88	0.00	0.00	0.00	74.31
		<b>2,209.96</b>	<b>76.04</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>76.47</b>
Herbert Spencer Elementary	Electricity	680.53	2.04	0.00	0.00	0.00	2.04
	Natural Gas	1,636.20	81.12	0.00	0.00	0.00	81.60
		<b>2,316.73</b>	<b>83.16</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>83.64</b>
Home Learners (Bowen)	Electricity	105.84	0.32	0.00	0.00	0.00	0.32
Home Learners (New West)	Natural Gas Estimate	207.40	10.28	0.00	0.00	0.00	10.34
Hume Park School	Electricity	122.54	0.37	0.00	0.00	0.00	0.37

5/2/2018

SMARTTool

	Natural Gas	205.41	10.18	0.00	0.00	0.00	10.24
		327.95	10.55	0.00	0.00	0.00	10.81
Lord Kelvin Elementary	Electricity	580.68	1.74	0.00	0.00	0.00	1.74
	Natural Gas	1,600.00	79.33	0.00	0.00	0.00	79.80
	Propane Gas	13.92	0.83	0.00	0.00	0.00	0.85
		2,194.59	81.90	0.00	0.00	0.00	82.39
Lord Tweedsmuir Elementary	Electricity	462.00	1.39	0.00	0.00	0.00	1.39
	Natural Gas	1,656.10	82.11	0.00	0.00	0.00	82.60
		2,118.10	83.50	0.00	0.00	0.00	83.98
New Westminster Secondary	Electricity	5,887.18	17.66	0.00	0.00	0.00	17.66
	Natural Gas	18,111.16	887.95	0.00	0.02	0.02	903.26
	Propane Gas	146.84	8.79	0.00	0.00	0.00	8.98
		24,145.18	924.40	0.00	0.02	0.02	929.90
POWER Alternate Secondary School	Electricity Estimate	212.55	0.64	0.00	0.00	0.00	0.64
	Natural Gas Estimate	285.80	14.17	0.00	0.00	0.00	14.25
		498.35	14.81	0.00	0.00	0.00	14.89
Queen Elizabeth Elementary	Electricity	602.42	1.81	0.00	0.00	0.00	1.81
	Natural Gas	753.74	37.37	0.00	0.00	0.00	37.59
		1,356.16	39.18	0.00	0.00	0.00	39.40
Queensborough Middle School	Electricity	625.46	1.88	0.00	0.00	0.00	1.88
	Natural Gas	1,715.00	85.03	0.00	0.00	0.00	85.53
		2,340.46	86.91	0.00	0.00	0.00	87.41
R-Cap (Royal City Alternative Program)	Electricity	147.26	0.44	0.00	0.00	0.00	0.44
	Natural Gas	38.77	1.82	0.00	0.00	0.00	1.83
		184.03	2.26	0.00	0.00	0.00	2.28
Richard McBride Elementary	Electricity	490.00	1.47	0.00	0.00	0.00	1.47
	Natural Gas	1,708.89	84.73	0.00	0.00	0.00	85.23
	Propane Gas	67.13	4.02	0.00	0.00	0.00	4.11
		2,266.02	90.21	0.00	0.00	0.00	90.80
<b>Total Emissions, Calendar Year 2017</b>		<b>48,885.02</b>	<b>1,721.17</b>	<b>0.00</b>	<b>0.03</b>	<b>0.03</b>	<b>1,731</b>
<b>Carbon Neutral or Offset Exempt</b>			<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>
<b>Total for Offsets<sup>4</sup></b>			<b>1,721.17</b>	<b>0.00</b>	<b>0.03</b>	<b>0.03</b>	<b>1,731</b>

Each greenhouse gas has been converted to a standard measurement (tCO<sub>2</sub>e) by multiplying its emissions by its global warming potential (GWP). The GWP of carbon dioxide (CO<sub>2</sub>) from 1. both anthropogenic and biogenic sources is 1; methane (CH<sub>4</sub>) is 25, and nitrous oxide (N<sub>2</sub>O) is 298. The Totals for tCO<sub>2</sub>e are shown here rounded to the nearest whole metric tonne as only whole tonnes of tCO<sub>2</sub>e can be purchased for offsets.

2. Estimated data has been calculated based on the methods described in the Methodology Document.

3. Reported data refers to consumption which has been directly billed to the organization.

4. The tCO<sub>2</sub>e value from the "Total for Offsets" line represents the quantity of offset purchases required to become carbon neutral.

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# Part 1: CNAR Survey

## 1. General Information

Name: Kevin Lorenz

Contact Email: klorenz@sd40.bc.ca

Organization Name: SD #40

Sector: School District

## 2. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

During 2017, did your organization take any of the following actions to support emissions reductions from buildings? (please select all that apply)

Performed energy retrofits of the organization's building(s); Built, or are building new LEED Gold or other "Green" buildings

2. Stationary Sources - Other? Please specify:: Awarded LEED Canada Gold @ QayQayt elementary - July/17  
Working towards LEED Canada Gold @ Fraser River Middle School

If you selected "*Performed energy retrofits of the organization's building(s)*":

How many buildings were retrofitted?: 1

If you selected "*Built, or are building new LEED Gold or other "Green" buildings*":

How many new "Green" buildings?: 2

Did your Organization perform any retrofits during 2017? Please describe briefly:

Lighting retrofit @ Herbert Spencer Elementary

## 2a. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

Please briefly describe your organization's plans to continue reducing emissions from its stationary sources:

### a) Over the next 1-5 years

Lighting upgrade currently and over time @ Queen Elizabeth Elementary. Lighting upgrade @ Lord Tweedsmuir Elementary in the next 1-5 yrs.

Mechanical upgrades with new boilers, new controls and new unit ventilators @ Connaught Heights Elementary, Lord Kelvin Elementary and Lord Tweedsmuir Elementary.

Seismic upgrade @ Lord Tweedsmuir and replacement school for New Westminster Secondary School.

### b) Over the following 6-10 years

Mechanical upgrades, new controls and lighting upgrades @ Glenbrook Middle school, Queensborough Middle School, Queen Elizabeth Elementary and Herbert Spencer Elementary.

## 3. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

During 2017, did your organization take any of the following actions to support emission reductions from its mobile sources? (please select all that apply)

Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)

3) Mobile Sources - Other? Please specify:: Replaced existing vehicles with more efficient pick up grounds vehicles.

If you selected "*Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)*":

How many vehicles?: 1

If you selected "*Replaced existing vehicles with hybrid or electric vehicles*":

How many vehicles?:

## 3a. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

Please briefly describe your organization's plans to continue reducing emissions from its mobile sources:

a) Over the next 1-5 years

Plan to replace vehicles with gas efficient models and will look to purchasing electric vehicles.

b) Over the following 6-10 years

## 4. Supplies (Paper): Indicate which actions your PSO took in 2017:

During 2017, did your organization take any of the following actions to support emissions reductions from paper supplies? (please select all the apply)

Had a policy requiring the purchase of recycled content paper

4) Supplies (Paper): Indicate which actions your PSO took in 2017: - Other? Please describe briefly:: Policy requiring the purchase of recycled content paper.

If you selected "*Had a policy requiring the purchase of recycled content paper*":

State the required recycled content here (30%, 50%, 100%): 30

If you selected "*Had a policy requiring the purchase of alternate source paper (bamboo, hemp, wheat, etc)*", which type of alternate source paper did you use?

Please briefly describe your organization's plans to continue reducing emissions associated with its office paper use in future years.

Continue to use double sided option on all district photocopiers. Communicate by e-mail. Installed a work order system directly to the Maintenance employee's phone devices, this eliminated printing work orders.

## 5. Other Sustainability Actions

### a) Business Travel

During 2017, did your organization take any of the following actions to support emissions reductions from business travel? (please select all that apply)

Encouraged alternative travel for business (e.g. bicycles, public transit, walking)

### b) Education/Awareness

During 2017, did your organization have any of the following programs or initiatives to support sustainability education and awareness? (please select all that apply)

Support for professional development on sustainability (e.g. workshops, conferences, training)

### c) Other Sustainability Actions

During 2017, did your organization have any of the following programs or initiatives to support sustainability? (please select all that apply)

A water conservation strategy which may include a plan or policy for replacing water fixtures with efficient models; An operations policy or program to facilitate the reduction and diversion of building occupant waste (e.g., composting, collection of plastics, batteries) from landfills or incineration facilities; Green procurement standards for goods (e.g., office furniture, etc.)