



New  
Westminster  
Schools



# 2018 Carbon Neutral Action Report

*New Westminster School District 40*  
*Where students love to learn*

## DECLARATION STATEMENT

This Carbon Neutral Action Report for the period January 1st, 2018 to December 31st, 2018 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2018 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2019 and beyond.

By June 30, 2019 New Westminister School District's final *Carbon Neutral Action Report* will be posted to our website at [newwestschools.ca](http://newwestschools.ca)

## OVERVIEW

In the Kindergarten to Grade 12 system in 2018, there were approximately 7,500 students, including::

- 298 Aboriginal students;
- 1,026 English Language Learner (ELL) students;
- 993 French Immersion students; and,
- 524 students with identified Special Needs.

New Westminister School District is a diverse, growing district with 8 elementary schools, 3 middle schools and one secondary school, along with our School Board Office building.

On behalf of School District 40, we are pleased to present our Carbon Neutral Action Report for 2018. This School District is committed to lower greenhouse gas emissions through leadership, developmental planning and educating our future generations about the importance of sustainability. The "environmental clubs" at various schools engage in conservation tasks including composting, recycling, turning out the lights and take part in various sustainability training workshops.

Through major capital funding, our district has begun the development of two replacement schools which will see further improvements to our GHG emission reductions. Also, School Enhancement Program funding has allowed the district to complete many emission reducing projects which will lower our carbon footprint of older inefficient building systems that do not meet today's building efficiency standards.

## PAST LEED GOLD STANDARDS

New Westminster School District is proud to have 1 Leed Gold Standard Schools and 1 Leed Gold Standard Board Office building built and completed in 2016, plus 1 Leed Gold Standard School built in 2014.

## NEW CONSTRUCTION

In 2016, New Westminster School District received Capital Ministry funding for the replacement of New Westminster Secondary School and in 2018 Graham Construction broke ground on the site. The new school will accommodate 1,900 grades 9 to 12 students in a 21st century learning environment that meets today's standards for modern learning, safety and accessibility, while incorporating the latest sustainable energy management systems. The project is scheduled to open in September 2020 with a Leed Gold Standard as well.



In 2018 the replacement funding for the aging Richard McBride Elementary School was announced and has a sustainable design that will minimize impacts on the environment and aim for Leed gold standard. Construction is in the consultation and design phase with completion scheduled for 2021.

## 2018 GHG EMISSION REDUCTION INITIATIVES



### Mechanical upgrades

- Full direct digital controls at 5 schools
- Boiler plant replacement at Glenbrook Middle School,
- All gas fired inefficient furnaces replaced with hot water unit ventilators installed at Connaught Heights Elementary
- Implementation of DDC software to monitor mechanical systems and temperatures to optimize energy efficiency
- Installed and replaced 5 portable furnaces with high efficiency furnaces
- Replacement of hot water circulating pumps with variable speed drive models to conserve energy and water consumption

## Electrical Upgrades



- Herbert Spencer Elementary classroom retrofit to LED tubes
- Glenbrook Middle School gym retrofit to LED tubes
- Lord Tweedsmuir Elementary gym retrofit from T8 tubes to T5 LED tubes

## Technology upgrades

New Westminster School District has moved towards implementing a shift from paper reporting to web-based; the district's maintenance department now uses a web-based program for its work order system, school offices use online attendance and is implementing a web-based student portfolio system, eliminating the need to print individual report cards.

To reflect an ever-changing world, course curriculums and means of engaging students in learning, New Westminster Senior Secondary School and Fraser River Middle School now subscribe to digital textbooks instead of purchasing class sets of print teaching materials and textbooks. Each teacher in New Westminster School District has been given an electronic device to provide a clear picture of student progress using assessment programs such as Freshgrade to allow students and parents to view their progress in the classroom and seamlessly move students from one classroom or teacher to another.

To reduce paper consumption and eliminating unnecessary copying of instructional materials, New Westminster Secondary School closed the print shop resulting in a 44% reduction.

## PLANS TO CONTINUE REDUCING EMISSIONS IN 2019 AND BEYOND


- Replacement of 12 outdated gas fired rooftop units to hot water rooftop air handlers at Glenbrook Middle School
- Replacement of boiler system at Herbert Spencer Elementary and installing high efficiency condensing boilers for heating and domestic loops
- Continue monitoring building efficiencies through our DDC systems
- Installation of classroom occupancy sensors for heating and lighting
- Continue retrofitting our lighting to LED
- Continue education to schools staff regarding the importance of carpooling
- Continue installing roofing membranes with insulation to keep thermal energy in buildings
- Continue 3 bin program at all schools and education to schools about the importance of reducing garbage and encouraging recycling or reduction of waste
- Our board continues to provide a learning environment where sustainability practices are encouraged and align with the vision, mission and values

School District No. 40 (New Westminster)] GHG Emissions and Offset for 2018 (tCO <sub>2</sub> e)	
<b>GHG Emissions created in Calendar Year 2018</b>	
Total Emissions (tCO <sub>2</sub> e)	1,796
Total BioCO <sub>2</sub>	2.99
Total Offsets (tCO <sub>2</sub> e)	1,793
<b>Adjustments to GHG Emissions Reported in Prior Years</b>	
Total Emissions (tCO <sub>2</sub> e)	1
Total Offsets (tCO <sub>2</sub> e)	1
<b>Grand Total Offsets for the 2018 Reporting Year</b>	
Grand Total Offsets Required (tCO <sub>2</sub> e)	1,794
Total Offset Investment	\$44,850

**Retirement of Offsets:**

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, School District No. 40 (New Westminster) is responsible for arranging for the retirement of the offsets obligation reported above for the 2018 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 6 / 2019  
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 Signature Date

KARIM HACHLAF SUPERINTENDENT/CEO  
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 Name (please print) Title