

August 4, 2021

Memorandum to: Directors of Education
Secretary/Treasurers of School Authorities

From: Nancy Naylor
Deputy Minister

Subject: School ventilation

We would like to recognize the extensive work that has been undertaken by all school boards over the past year to optimize and improve ventilation and filtration in schools. As a result of these efforts, we are pleased to note that ventilation improvement measures have been reported in all schools in all school boards across the province.

Results Achieved to Date

Supported by over \$550M in incremental investments in ventilation measures and heating, ventilation and air conditioning (HVAC) system improvements in the 2020-21 school year, school boards have undertaken extensive work over the past year to optimize and improve ventilation and air filtration in schools.

- \$100M was allocated for immediate improvements, including to undertake retrofits and repairs to existing systems and purchase standalone high efficiency particulate air (HEPA) filter units; and
- \$450M was allocated for HVAC and window upgrades in schools to optimize air quality and ventilation (2,052 ventilation improvement projects in over 1,670 schools and co-located childcare facilities across the province).

These investments allowed all schools to implement a range of measures to improve ventilation and air quality. In schools with mechanical ventilation:

- 99% of the systems have been assessed and/or recommissioned to optimize air flow
- 92% of the filters are being changed more frequently and/or using higher grade air filters, including MERV-13 rated air filters
- 91% are running systems longer
- 87% have increased fresh air intake
- Over 50,000 standalone HEPA filter units and other ventilation devices were purchased.

Going Forward: 2021-22 School Year Guidance & New Investment

Building on what has been achieved to date, for the 2021-22 school year, school boards are expected to continue implementation of best practice measures to improve ventilation and/or filtration to support healthy and safe learning environments for students and staff.

School boards are expected to continue to plan for and make upgrades to improve ventilation infrastructure in schools. Projects should be prioritized to meet appropriate minimum ventilation guidelines from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 62.1-2019.

In preparation for the 2021-22 school year, this memo includes:

1. Updated ventilation best practice guidance;
2. Details of the investment in and approach to allocating standalone HEPA filter units; and
3. Introduction of a standardized school ventilation report.

Updated Ventilation Guidance

School boards are expected to continue optimizing air quality in classrooms and learning environments through improving ventilation and/or filtration. This is a key element in the multiple protective strategies to support healthy and safe learning environments for students and staff.

Updated 2021-22 Ventilation Best Practices Guidance is attached in Appendix A of this memo. The guidance for the 2021-22 school year builds on the best practice/checklist document released by the Ministry of Education in August 2020 ([2020: B12 Optimizing Air Quality in Schools](#)) and has been augmented to reflect latest information from Ontario's COVID-19 Science Advisory Table and Public Health Ontario.

School boards are required to ensure ventilation systems in all schools are inspected and in good working order prior to the start of the school year and continue inspection and maintenance throughout year. Inspections can be done internally by school board staff or by third parties. School boards are expected to continue using and/or adopt ventilation improvement measures that are applicable to schools' existing ventilation systems.

For schools with full mechanical ventilation, school boards are expected to:

- use the highest-grade filters possible, preferably MERV 13;
- undertake frequent filter changes through the school year;
- operate ventilation systems 2 hours or more before and after school occupancy; and
- calibrate HVAC systems for maximum air flow and increased fresh air intake.

This guidance also applies to schools with mechanical ventilation for parts of schools, such as additions.

For schools or parts of schools without mechanical ventilation, school boards are required to place standalone HEPA filter units in all occupied learning environments, including gyms, libraries, lunchrooms, childcare spaces, administrative spaces, as well as portables with no or poor mechanical ventilation, before students return to class. These units provide particle filtration of airstreams and improve air exchange. These units must be sized for the classroom or learning environment that is being used. In larger classrooms and learning environments, more than one HEPA unit may be required.

For schools with mechanical ventilation, school boards are expected to place a standalone HEPA filter unit in every occupied Full-Day Kindergarten (FDK) classroom as an additional health and safety measure to recognize that JK-SK students are not masked in the classroom. In addition, school boards are encouraged to support outdoor education, where possible, and open windows where this augments ventilation for classrooms and learning environments.

Investment in Standalone HEPA Units

As noted above, school boards are expected to place standalone HEPA units in:

- All occupied learning environments in schools or parts of schools without mechanical ventilation; and
- FDK classrooms in schools in schools with mechanical ventilation.

School boards are required to have these units in place prior to the start of the school year.

To support school boards in fulfilling this requirement, the ministry is investing up to **\$25M for the purchase of standalone HEPA filter units** to address this new requirement. **Approximately 20,000 standalone HEPA filter units have already been procured** through the Ministry of Government and Consumer Services and are ready for **immediate deployment to school boards** to ensure school boards can have these units before the start of the school year. The balance of the investment will be flowed as funding to school boards.

The Board-by-Board (BBB) allocation of the centrally procured standalone HEPA units and incremental funding can be found in Appendix B. The investment is allocated by the ministry to school boards based on school level data submitted by school boards in June and July 2021 and reflects the type of ventilation in place for each facility, as well as the number of standalone HEPA units the boards have reported as already being in place in these schools. The new investment is intended to provide the incremental units needed by

school boards to meet the new requirements set out by the ministry for the 2021-22 school year.

For school boards that may have already procured standalone HEPA filter units, such that all learning environments stated that require units already have them in place, these new units can be deployed to other learning environments in a manner that maximizes their benefit and minimizes overall transmission risks.

To ensure units are available on site for the start of the school year, **each school board is asked to identify a lead contact for ventilation and send a contact name by Thursday, August 5, 2021 to CAPITAL.POLICYBRANCH@ontario.ca**. We are also requesting each school board to identify one shipping location where the centrally procured units will be sent. Once products arrive at the identified location, school boards will be responsible for deploying them to the appropriate schools.

For allocated funding, school boards should procure units in the most expedient way available, be it through local suppliers that have sufficient inventory, or through the Ontario Education Collaborative Marketplace (OECM), whose vendors have inventory available for immediate deployment.

Introduction of Standardized School Ventilation Measures Report

For the 2021-22 school year, the ministry is also launching a standardized ventilation report. School boards will be required to communicate school-level ventilation measures centrally on their school board website. This will enhance transparency for school communities, including students, parents and staff, and provide consistent communication across the province.

The ministry will engage stakeholders -in advance of the release of the final report/dashboard. Measures may include whether: ventilation has been inspected, measures in place in each school (such as use of higher grade filters, frequency of filter changes, HVAC systems are running longer, standalone HEPA filter units installed, windows are being opened, etc.). To the extent that this report will be based on the school-by-school reporting school boards have already completed over the summer, the goal is to have the report/dashboard format finalized the week of August 9th to ensure school boards have the opportunity to populate and post their reports prior to the start of the school year. School boards are required to complete their reports by August 27th, 2021 and publicly post it on their websites no later than September 3rd, 2021, ahead of return to class.

We recognize the work that will be required by your staff to post this information before students and staff return to school. We hope that enhanced communication will support a broader understanding of completed and ongoing work to improve ventilation in your schools.

Summary

The investment announced today brings the total of dedicated incremental investments in ventilation to over \$600M, including:

- \$550M provided last year;
- \$29.4M allocated earlier this year as part of the 2021-22 GSN announcement; and
- \$25M being announced today for standalone HEPA filter units.

These investments are in addition to the \$1.4B in annual school renewal funding available to school boards to support improvements to ventilation systems.

The ministry is looking forward to working with school boards on the successful implementation of the initiatives outlined today, as well as broader ventilation systems improvements funded through the school renewal allocation.

Sincerely,

Nancy Naylor
Deputy Minister

- c: Executive Director, Association des conseils scolaires des écoles publiques de l'Ontario (ACÉPO)
Executive Director, Association franco-ontarienne des conseils scolaires catholiques (AFOCSC)
Executive Director, Ontario Catholic School Trustees' Association (OCSTA)
Executive Director, Ontario Public School Boards' Association (OPSBA)
Executive Director, Council of Ontario Directors of Education (CODE)
Executive Director and Secretary-Treasurer, Association des enseignantes et des enseignants franco-ontariens (AEFO)
General Secretary, Ontario English Catholic Teachers' Association (OECTA)
General Secretary, Elementary Teachers' Federation of Ontario (ETFO)
General Secretary, Ontario Secondary School Teachers' Federation (OSSTF)
Chair, Ontario Council of Educational Workers (OCEW)
Chair, Education Workers' Alliance of Ontario (EWAO)
Co-ordinator, Canadian Union of Public Employees – Ontario (CUPE-ON)
Executive Director, Association des directions et directions adjointes des écoles franco-ontariennes (ADFO)
Executive Director, Catholic Principals' Council of Ontario (CPCO)
Executive Director, Ontario Principals' Council (OPC)
Ontario Association of School Business Officials
Facilities Managers

Appendix A: Updated Ventilation Best Practice Guidance

School boards are expected to continue optimizing air quality in classrooms and learning environments through improving ventilation and/or filtration. This is a key element in the multiple protective strategies to support healthy and safe learning environments for students and staff.

Resources

This guidance builds on the best practice/checklist document released by the Ministry of Education in August 2020 through [2020: B12 Optimizing Air Quality in Schools](#) and has been augmented to reflect latest information from Ontario's COVID-19 Science Advisory Table and Public Health Ontario.

School boards are encouraged to review and assess this material in the context of their school facilities:

- Ontario's COVID-19 Science Advisory Table: [School Operations for the 2021-22 Academic Year in the Context of the COVID-19 Pandemic](#)
- Public Health Ontario: [COVID-19 - Schools and Related Settings](#) including [Heating, Ventilation and Air Conditioning \(HVAC\) Systems in Buildings and COVID-19](#)

Context

Ventilation and filtration are important components of an indoor air quality improvement strategy to help reduce transmission risks:

- **Ventilation:** is the supply/distribution or removal of air from a space by mechanical or natural means to support diluting the concentration of any infectious particles.
- **Filtration:** involves the use of different types of fibrous media designed to remove particles from the airstream.

Expectations

Building on what has been achieved to date, for the 2021-22 school year, school boards are expected to continue implementation of best practice measures to improve ventilation and/or filtration to support healthy and safe learning environments for students and staff.

School boards are required to ensure ventilation systems in all schools are inspected and in good working order prior to the start of the school year and continue inspection and maintenance throughout year. Inspections can be done internally by school board staff or by third parties.

For schools with full mechanical ventilation, school boards are expected to:

- use the highest-grade filters possible, preferably MERV 13 filters if systems can accommodate;
- undertake frequent filter changes through the school year;
- operate ventilation systems 2 hours or more before and after school occupancy;
- calibrate HVAC systems for maximum air flow and increased fresh air intake.

This guidance also applies to schools with mechanical ventilation for parts of schools, such as additions.

For schools or parts of schools without mechanical ventilation, school boards are expected to place standalone HEPA filter units in all occupied learning environments, including gyms, libraries, lunchrooms, childcare spaces, administrative spaces and portables with no or poor mechanical ventilation, before students return to class. These units provide particle filtration of airstreams and improve air exchange. These units must be sized for the classroom or learning environment that is being used. In larger classrooms and learning environments, more than one HEPA unit may be required.

For schools with mechanical ventilation, school boards are expected to place a standalone HEPA filter unit in every occupied Full-Day Kindergarten (FDK) classroom as an additional health and safety measure to recognize that JK-SK students are not masked in the classroom.

School boards are asked to have these units in place prior to the start of the school year.

In addition, school boards are encouraged to support outdoor education where possible, and open windows where this augments ventilation for classrooms and learning environments.

Building on improvements made to ventilation in schools over the past year, school boards are expected to continue to work with qualified persons to plan for and continue to make upgrades to improve ventilation infrastructure. Projects should be prioritized to meet appropriate minimum ventilation guidelines from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 62.1-2019.

Best Practices

Best practices for achieving and maintaining adequate air quality through ventilation and filtration should be considered, with qualified persons, in the context of school facilities and related building systems (including manufacturer recommendations). School occupancy levels should be taken into consideration.

For buildings/rooms that rely on **natural ventilation/no HVAC system**:

- Opening **windows** for short times at intermittent intervals, if safe to do so (assess to prevent re-entry of building exhaust).

- Assessing **exhaust systems** (review to ensure exhaust air is not re-entering the building e.g., windows, science labs, washrooms) and ensure restroom exhaust fans are functional and operating at full capacity when the building is occupied.
- Placing **standalone air cleaner/HEPA filter unit(s)** in the room/space [required in learning environments noted above]. Considerations for use of standalone HEPA filter units include:
 - Should be sized for the space (taking into consideration unit output and room size); larger spaces with higher occupancy may require multiple units and their placement should be carefully selected e.g., based on the size of the room, ensuring air does not flow directly from one person to another and air intake is not directly from the floor.
 - Position in rooms/space should take into consideration the likelihood that aerosols/droplets are being captured by the intake and that the exhaust is not directed to occupants. Consider placement near the center of the room or near potential sources of droplets/aerosols (i.e., choir, playing of wind and brass instruments, lunch tables).
 - Ensure that units are cleaned and maintained, following manufacturer's instructions.
 - Noise rating of a unit should be considered.

For buildings/rooms that rely on **mechanical ventilation/HVAC systems**:

- Regularly **maintain systems** (see checklists below as provided in August 2020 through [2020: B12 Optimizing Air Quality in Schools](#)).
- Optimize for **respiratory particle removal**
- Use **highest rated Minimum Efficiency Reporting Value (MERV) filter** that can be accommodated by the system.
- Regularly **inspect filters** to make sure they are installed and fit correctly.
- Regularly **replace filters**; consider increasing frequency of filter changes to maintain overall performance.
- Check that **sufficient airflow** can be maintained based on HVAC design criteria.
- **Check and monitor measures with the goal of optimization** (e.g., air exchange rates, outdoor air intake, temperature, humidity).
 - In consultation with qualified persons, air exchange rate and outdoor air intake can be increased. The limits of what is possible may be dictated by thermal comfort, humidity, and outdoor air quality.
 - Assess and adjust/optimize demand control ventilation if required and as much as practically feasible to increase outdoor/fresh air.
 - If practical or possible, bypass energy recovery ventilation systems that recirculate/mix exhaust air back into the outdoor air supply.
- Assess **exhaust systems** (review to ensure exhaust air is not re-entering the building e.g., windows, science labs, washrooms) and ensure restroom exhaust fans are functional and operating at full capacity when the building is occupied.
- Consider keeping systems **running longer hours** (e.g., 2 hours prior to occupant entry with consideration to school and childcare start-times and 2 hours post occupancy with

similar considerations). This may require adjustment of CO₂ sensors to prevent early system shutoff.

- Placing **standalone air cleaner/HEPA filter unit(s)** in the room/space [required in learning environments noted above]. See above for related considerations.

School boards should also ensure that implemented measures do not introduce new health hazards to the setting, for example:

- Do not open windows and doors if doing so poses safety or health risk, e.g., risk of falling, triggering asthma symptoms, risk of bees/wasps, to students and staff.
- Do not prop open fire doors to increase ventilation and/or reduce exposure to frequently touched door handles.
- Avoid use of technology or devices that may pose safety or health risks, e.g. risk of significant ozone production as a by-product of their operation, or any unproven technologies.
- Avoid direct air flow around people's breathing zones to reduce respiratory droplets being dispersed from person to person. Rather than air flow at head level, options would be to direct the air upwards or to exhaust room air out of an open window while other open windows draw fresh air in.

Carbon dioxide (CO₂) levels can serve as a proxy measure for overall ventilation but is not a measure of COVID-19 transmission risk. To be done properly, CO₂ monitoring requires expertise and communication. School boards can choose to use CO₂ sensors, such as CO₂ monitors integrated with building automation systems or standalone sensors, to help identify less well-ventilated areas to prioritize for mitigation measures, but reading interpretation and mitigation decisions should be made with consideration of issues identified in Public Health Ontario's guidance: [Heating, Ventilation and Air Conditioning \(HVAC\) Systems in Buildings and COVID-19](#).

Air Quality Checklist Examples

As provided in August 2020 through [2020: B12 Optimizing Air Quality in Schools](#). Review the best practices checklists below with qualified persons and assess in the context of existing building systems and their operations. These checklists serve as examples. Applicability will vary depending on the situation. Other sources of information include reviewing manufacturer recommendations.

Summer Checklist prior to Fall Start of Classes

Examples of HVAC-related measures:

- Review air distribution conditions of existing spaces.
- Review existing indoor air quality issues.
- Review control sequences to verify existing systems are operating to maintain ventilation, temperature, and humidity conditions as designed for occupied areas.

Startup Checklist for HVAC Systems Prior to Occupancy

Includes recommendations to review, maintain and monitor HVAC systems, for example:

HVAC Systems Checklist	
Consider operating mechanical systems in occupied mode for a period of one week prior to students returning under normal operating hours. Endeavour to maintain proper school indoor air temperature and humidity levels to maintain occupant comfort.	<input type="checkbox"/>
Assess air intakes and exhaust discharge outlets to prevent/limit re-entry of exhaust air.	<input type="checkbox"/>
Review and update existing standards for frequency of filter replacement & type of filters to	<input type="checkbox"/>
If Demand-Controlled Ventilation (DCV) systems using Carbon Dioxide (CO ₂) sensors are installed, trend and monitor on an ongoing basis.	<input type="checkbox"/>
Review and update, if required, scheduled maintenance protocols.	<input type="checkbox"/>
Consider re-adjusting start time of HVAC systems to two hours prior to occupant entry with consideration to school and childcare start-times and two hours post occupancy with similar considerations.	<input type="checkbox"/>
Review air distribution conditions of existing spaces (look for covered diffusers, blocked return grilles, overly closed supply diffusers/registers and return/exhaust grilles).	<input type="checkbox"/>

Best Practices: Ongoing/Daily/Monthly/Annual Maintenance

Checklist to consider at various frequencies during the academic year. A few examples of the many HVAC-related measures are listed below:

A. Ongoing / Daily Maintenance

System reviews to undertake on an ongoing basis	
Review control sequences to verify systems are operating as designed to maintain required ventilation and temperature in occupied areas.	<input type="checkbox"/>
Maintain proper indoor air temperature to maintain human comfort.	<input type="checkbox"/>
Verify filtration in all mechanical equipment: verify filters installed correctly and are being	<input type="checkbox"/>
If Demand-Controlled Ventilation (DCV) systems using CO ₂ sensors are installed, trend and	<input type="checkbox"/>
Perform initial air flush of all spaces prior to occupancy (e.g., two hours prior to occupant entry with consideration to school and childcare start-times and two hours post occupancy with similar considerations).	<input type="checkbox"/>

B. Monthly Maintenance

Air Handling Units: Monthly	
Check for particulate accumulation on filters, replace filter as needed.	<input type="checkbox"/>
Check for particulate accumulation on outside air intake screens.	<input type="checkbox"/>
Check the control system and devices for evidence of improper operation.	<input type="checkbox"/>
Check variable-frequency drive for proper operation.	<input type="checkbox"/>
Check drain pans for cleanliness, proper slope and drainage.	<input type="checkbox"/>
Check P-trap.	<input type="checkbox"/>
Verify control dampers operate properly.	<input type="checkbox"/>
Confirm AHU is bringing in outdoor air and removing exhaust air as intended.	<input type="checkbox"/>
Verify filters are installed correctly and reasonably clean.	<input type="checkbox"/>
Review condition and cleanliness of coils and heat recovery wheels in air handling equipment.	<input type="checkbox"/>

Roof Top Units: Monthly	
Check for particulate accumulation on outside air intake screens and filters. Replace filter as	<input type="checkbox"/>
Check P-trap.	<input type="checkbox"/>
Check drain pans for cleanliness and proper slope.	<input type="checkbox"/>
Check the control system and devices for evidence of improper operation.	<input type="checkbox"/>
Check variable frequency drive for proper operation.	<input type="checkbox"/>
Check refrigerant system for leaks.	<input type="checkbox"/>
Check for evidence of leaks on gas heat section heat-exchanger surfaces.	<input type="checkbox"/>
For fans with belt drives, inspect belts and adjust as necessary.	<input type="checkbox"/>
Verify control dampers operate properly.	<input type="checkbox"/>
Unitary and Single Zone Equipment: Monthly	
<i>For example: Wall Hung Units, Unit Ventilators, Mini-Splits, Packaged Terminal Air Conditioners, Water-Source Heat Pumps, Fan Coil Units</i>	
Check for particulate accumulation on filters, replace or wash filter as needed.	<input type="checkbox"/>
Check P-trap.	<input type="checkbox"/>
Check drain pans for cleanliness and proper slope.	<input type="checkbox"/>
Check the control system and devices for evidence of improper operation.	<input type="checkbox"/>
Verify control dampers operate properly.	<input type="checkbox"/>

C. Annual Maintenance

Pumps: Annually	
Inspect pumps and associated electrical components for proper operation.	<input type="checkbox"/>

Appendix B: Board-by-Board Allocation of New Investment

The Board-by-Board (BBB) allocation of the centrally procured standalone HEPA units and incremental funding were developed using school level data submitted by school boards in June and July 2021 and reflects the type of ventilation in place for each facility, as well as the number of standalone HEPA units the boards have reported as already being in place in these schools. The new investment is intended to provide the incremental units needed by school boards to meet the new requirements set out by the ministry for the 2021-22 school year.

The allocation methodology of units and funding assumes that in schools or relevant part of schools:

- Without mechanical ventilation:
 - 1 HEPA unit per classroom (including portable)
 - 1 HEPA unit per specialized classroom (e.g., music rooms, art rooms, labs, etc.)
 - 2 HEPA units per JK/SK room
 - 2 HEPA units per childcare room
 - 4 HEPA units per gym (based on average size of gym)
 - 2 HEPA units per library (based on average size of library)
 - 4 HEPA units per lunchroom
 - 1 HEPA unit per administrative space
- With mechanical ventilation
 - 1 HEPA unit per JK/SK room
 - 1 HEPA unit per portable with poor mechanical ventilation

In determining the need of standalone HEPA units and funding, the allocation below takes into account the number of HEPA units reported to be already deployed in schools/school spaces that are not mechanically ventilated. It is also important to note that gym and library allocations reflect the average of gyms and libraries. School boards should adjust the number of new portable HEPA units to reflect the actual size of gyms/libraries in in-scope facility.

No.	School Board Name	Total HEPA units	Total funding for HEPA units \$
1	DSB Ontario North East	109	18,000
2	Algoma DSB	132	28,000
3	Rainbow DSB	900	34,000
4	Near North DSB	181	23,000
5A	Keewatin-Patricia DSB	23	13,000
5B	Rainy River DSB	19	8,000
6A	Lakehead DSB	26	20,000
6B	Superior-Greenstone DSB	10	6,000
7	Bluewater DSB	103	45,000
8	Avon Maitland DSB	62	34,000
9	Greater Essex County DSB	491	72,000

10	Lambton Kent DSB	320	51,000
11	Thames Valley DSB	630	201,000
12	Toronto DSB	648	527,000
13	Durham DSB	311	171,000
14	Kawartha Pine Ridge DSB	933	78,000
15	Trillium Lakelands DSB	768	35,000
16	York Region DSB	497	282,000
17	Simcoe County DSB	149	123,000
18	Upper Grand DSB	262	91,000
19	Peel DSB	1,462	417,000
20	Halton DSB	1,045	155,000
21	Hamilton-Wentworth DSB	794	120,000
22	DSB of Niagara	428	69,000
23	Grand Erie DSB	765	67,000
24	Waterloo Region DSB	331	156,000
25	Ottawa-Carleton DSB	780	161,000
26	Upper Canada DSB	147	58,000
27	Limestone DSB	820	49,000
28	Renfrew County DSB	63	21,000
29	Hastings and Prince Edward DSB	199	38,000
30A	Northeastern Catholic DSB	58	7,000
30B	Nipissing-Parry Sound Catholic DSB	215	8,000
31	Huron-Superior Catholic DSB	56	11,000
32	Sudbury Catholic DSB	37	14,000
33A	Northwest Catholic DSB	7	6,000
33B	Kenora Catholic DSB	4	4,000
34A	Thunder Bay Catholic DSB	22	18,000
34B	Superior North Catholic DSB	7	5,000
35	Bruce-Grey Catholic DSB	15	13,000
36	Huron Perth Catholic DSB	52	13,000
37	Windsor-Essex Catholic DSB	167	40,000
38	London District Catholic School Board	69	50,000
39	St. Clair Catholic DSB	75	21,000
40	Toronto Catholic DSB	1,766	203,000
41	Peterborough V N C Catholic DSB	39	32,000
42	York Catholic DSB	499	141,000
43	Dufferin-Peel Catholic DSB	160	131,000
44	Simcoe Muskoka Catholic DSB	72	55,000
45	Durham Catholic DSB	98	47,000
46	Halton Catholic DSB	105	77,000
47	Hamilton-Wentworth Catholic DSB	283	70,000

48	Wellington Catholic DSB	25	20,000
49	Waterloo Catholic DSB	69	52,000
50	Niagara Catholic DSB	147	57,000
51	Brant Haldimand Norfolk Catholic DSB	117	24,000
52	Catholic DSB of Eastern Ontario	178	30,000
53	Ottawa Catholic DSB	286	87,000
54	Renfrew County Catholic DSB	104	14,000
55	Algonquin and Lakeshore Catholic DSB	204	9,000
56	CSD du Nord-Est de l'Ontario	16	10,000
57	CSD du Grand Nord de l'Ontario	36	11,000
58	CS Viamonde	67	45,000
59	CÉP de l'Est de l'Ontario	192	45,000
60A	CSD catholique des Grandes Rivières	170	17,000
60B	CSD catholique Franco-Nord	69	10,000
61	CSD catholique du Nouvel-Ontario	385	28,000
62	CSD catholique des Aurores boréales	11	5,000
63	CS catholique Providence	45	37,000
64	CS catholique MonAvenir	97	58,000
65	CSD catholique de l'Est ontarien	116	32,000
66	CSD catholique du Centre-Est de l'Ontario	203	71,000
100	James Bay Lowlands SSB	-	-
101	Moose Factory Island DSAB	20	-
102	Moosonee DSAB	21	-
103	Protestant SSB	8	1,000
		19,800 units	\$4,800,000

Reminder: Each school board is asked to identify a lead contact for ventilation and send a contact name by Thursday, August 5, 2021 to CAPITAL.POLICYBRANCH@ontario.ca.