

# Radon Outreach Contribution Program: Screening radon levels on selected Central Okanagan Schools and Public Radon Awareness

FINAL REPORT FISCAL YEAR 2020-21  
Nancy Mora Castro



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## Project description

### Goal

Through initiating screening of radon levels on selected schools in the Central Okanagan, school operators will learn how easy it is to test for radon, get radon on their agenda, mitigate where necessary to lower radon exposure to children and staff, and through an online campaign raise radon awareness region wide.

### Objectives

- Screen radon levels on selected schools in collaboration with School District 23, independent schools, and Interior Health.
- Provide free radon tests to interested residents to take action on radon in partnership with Interior Health and CARST.
- Design and implement a region-wide radon awareness through an online campaign and a webinar and/or in-person event pending on status of COVID-19 in partnership with Interior Health, local governments within the Central Okanagan, and CARST.

## Quantitative and qualitative results

Objectives	Key deliverables	Qualitative and Quantitative Results 2020-2021																							
Screen Radon levels in Central Okanagan schools:	<ul style="list-style-type: none"> <li>• Provide technical support to School District 23 &amp; independent schools to screen radon levels on selected schools. Inform of the HC Guide for Radon Measurements in Public Buildings.</li> <li>• Contact and register SD23/independent schools for Fall 2020 and Fall 2021</li> </ul>	<ul style="list-style-type: none"> <li>• An invitation to participate in the project and an online registration were setup and sent to school principals. With the support of SD23 and independent participant schools, a "Recommendation for Household Testing" notice was shared through the school newsletters to raise awareness within school communities (Appendix 1).</li> <li>• Through SD23, 45 public schools will be screened for radon in 2020-2022</li> <li>• 16 independent schools were invited. 10 accepted the invitation and registered to screen their buildings in 2020-2022.</li> </ul>																							
	<ul style="list-style-type: none"> <li>• Acquire radon test kits</li> </ul>	<ul style="list-style-type: none"> <li>• 380 radon test kits were purchased through the Canadian Association of Radon Scientists and Technologists (CARST) for distribution to participating schools.</li> </ul>																							
	<ul style="list-style-type: none"> <li>• Deliver and deploy radon test kits on school ground</li> </ul>	<ul style="list-style-type: none"> <li>• Radon detectors were delivered to participants schools early December 2020:</li> <li>• 51% public schools (23 out of 45 registered) distributed radon detectors in December 2020 and 22 will deploy the detectors in December 2021.</li> <li>• 80% of independent schools (8 out of 10 registered) distributed radon detectors in December 2020 and two schools will deploy the detectors in December 2021.</li> <li>• Pick up instructions were sent by email to all participant schools during March and April.</li> <li>• Four consolidated shipments from various schools were sent to the laboratory. LEX Scientific will send consolidated reports to CARST by early May.</li> <li>• The schools will receive their results by mid-May.</li> </ul>																							
		<table border="1"> <thead> <tr> <th>School type</th> <th>Number of schools 2020</th> <th>Detectors deployed</th> <th>Detectors lost</th> <th>Percentage of detectors sent to laboratory</th> <th>Average testing time (days)</th> </tr> </thead> <tbody> <tr> <td>Public</td> <td>23</td> <td>296</td> <td>7</td> <td>98%</td> <td>105</td> </tr> <tr> <td>Independent</td> <td>8</td> <td>95</td> <td>6</td> <td>94%</td> <td>101</td> </tr> <tr> <td>Total schools screened Dec 2020-April 2021</td> <td>31</td> <td>391</td> <td>13</td> <td></td> <td></td> </tr> </tbody> </table>	School type	Number of schools 2020	Detectors deployed	Detectors lost	Percentage of detectors sent to laboratory	Average testing time (days)	Public	23	296	7	98%	105	Independent	8	95	6	94%	101	Total schools screened Dec 2020-April 2021	31	391	13	
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Total schools screened Dec 2020-April 2021	31	391	13																						
Region-wide radon awareness through webinars and online campaigns	<ul style="list-style-type: none"> <li>• Design and implement a region wide radon awareness campaign and a webinar/event.</li> </ul>	<ul style="list-style-type: none"> <li>• On February 9, 2021, a brainstorming session took place with all stakeholders to plan the online campaign. The RDCO/City of Kelowna staff would like to share co-branding of the campaign HC/IH/SD23/CARST.</li> <li>• Due to communication's staff time constrains, an external service provider will be supporting the region-wide radon campaign efforts. City of Kelowna communication staff is working on the selection of the service provider (TBD).</li> </ul>																							



## Achievements

- Successful collaboration and coordination with SD23 and independent schools' staff to deploy 296 detectors in 23 public schools and 95 detectors in 8 independent schools. This means 51% of all public schools in the region and 80% of the participant independent schools screened their buildings for radon in 2020-2021.
- Radon awareness to public and independent schools was achieved through the notice shared "Recommendation for Household Testing".

## Lessons learned

- An online pre-registration to participate in the radon screening project was easy to setup and provided a list and main contacts for all the independent schools. Principals or maintenance staff from independent schools, provided basic information e.g. number of students and staff, building size, etc.
  - Requesting the building size and number of ground-floor classrooms helped the planning process, as we were able to estimate the number of detectors needed per school.
  - The information from all the SD23 schools was provided by the Health and Safety manager on a provided excel template, this allowed a very simple and smooth data collection process.

## Challenges

- No changes to deliverables were observed
- Instructions were provided to school staff on how to setup the detectors to avoid possible loss. Still, we had 2% and 6% of detectors loss in public and independent schools, respectively.

## Recommendations

The recommendations and future implications for the fiscal year 2021-2022 are:

### School Testing

- With all the stakeholders support, informational material about radon should be produced and provided to all participant schools to accompany their lab results. This information page must include: what to with the results, a webinar invitation to answer questions from school administration/maintenance personnel and links to radon professionals' associations.
- Another newsletter template needs to be provided to participant schools so they can share the school radon screening results with the school community and to recommend household testing to staff and parents.
- The remaining schools will be contacted in the Fall 2021.

### Region-wide Radon Campaign

- A communications plan is needed to ensure successful distribution of the radon test kits, increase awareness about radon in the environment and the health risks it poses, and encourage residents to test their home for radon. The service provider (TBD) will support the campaign efforts:
  - 100 radon detectors will be acquired through CARST in the Fall. Those detectors will be provided for Free to residents on first come- first serve basis.
  - Evaluate a possible collaboration with other agencies/associations to increase the number of available detectors for the Fall 2021.
  - An online pre-registration needs to be setup to allocate the available detectors.
  - A news release is planned to increase radon awareness once the online pre-registration and final number of available detectors are determined.



2021-HQ-000095

## Appendix 1

October 23, 2020

To: Central Okanagan Public Schools

Re: Radon Screening in Central Okanagan Schools 2020-2022

The [Regional Air Quality program](#) is offering free radon screening to all Central Okanagan Schools (both public and private) during the 2020 through 2022 winters, thanks to the support of Central Okanagan Public Schools and private schools, Interior Health, Take Action on Radon, the Canadian Association of Radon Scientists and Technologists ([CARST](#)) and Health Canada.

Radon is a radioactive gas that can be found in buildings, and exposure to elevated levels is the number one cause of lung cancer in non-smokers. Testing and reducing radon exposure will reduce the risk to staff and students.

Here is what you need to know:

1. Testing is free. This is not a comprehensive testing program, but rather an initial screening at participating schools. If radon levels are high, Health Canada guidance provides timeframes for action, which will allow for additional testing and/or the development of mitigation plans.
2. All Central Okanagan Public Schools have been registered and will participate in this screening project during the winters of 2020/2021 or 2021/2022. The District Health and Safety department will get in touch with the school administrator to arrange for deployment during the selected winter.
3. Aside from the number of detectors deployed, screening will follow Health Canada's guidance on testing schools for radon. Tests will be deployed for 91 days during the heating season in various rooms in the school, which will include administrative offices, classrooms, and the gym.
4. After 91 days the District Health and Safety department in collaboration with school staff will collect the radon detectors and send to the laboratory for analysis.
5. A report will be provided to each school along with guidance and mitigation information for results posting on the schools' website.

Raising awareness and being transparent with parents and staff is an important part of the process, and we kindly ask schools to **communicate about this project** from onset through completion in their newsletters and the school website. Interior Health is available to assist with messaging.

We look forward to your participation in this project. If you have any technical measurement, mitigation or messaging questions, please contact: Greg Baytalan, Air Quality Specialist [250- 469-7070 ext. 12273]

[Greg.Baytalan@interiorhealth.ca](mailto:Greg.Baytalan@interiorhealth.ca)

Regards,

Dave Cavezza,  
District Health & Safety Manager

[Dave.Cavezza@sd23.bc.ca](mailto:Dave.Cavezza@sd23.bc.ca)

250-470-3209



October 23, 2020

Dear Parents, Guardians and Staff:

RE: Radon Screening in Central Okanagan Schools 2020-2022 & Recommendation for Household Testing

As part of Central Okanagan Public and Independent Schools ongoing commitment to the health and safety of our students and staff, radon gas screening will be completed throughout public schools in SD23 and some participating Independent Schools during the winters of 2020/21 and 2021/22. This project will be completed with the assistance of Interior Health, [Take Action on Radon](#), the Canadian Association of Radon Scientists and Technologists ([CARST](#)), Health Canada, and the [Regional Air Quality program](#).

Radon is a radioactive gas that can be found in buildings, and exposure to elevated levels is the number one cause of lung cancer in non-smokers. Testing and reducing radon exposure will reduce the risk to staff and students. You may see detectors hanging in classrooms, administrative offices and the gym. They will look like black pill containers. They will need to stay in the same location for the full screening duration of 91 days or more.

After the screening testing is completed and results are available, the results will be shared on the schools' website along with general information. If school radon levels are high, then additional testing and/or mitigation plans will be explored in accordance with Health Canada's suggested timeframes. Health Canada and Interior Health recommend you test your home for radon as well. Central Okanagan Schools are taking action for the school environment, and we encourage you to take action at home.

The Central Okanagan region is known to have high radon levels, but levels can vary from house to house even in the same neighborhood. Testing is recommended to be completed for a minimum of 91 days during the heating season, so now is a great time to start testing your indoor environments (home, work, leisure). Residents can go online to [rdco.com/radonchallenge](http://rdco.com/radonchallenge) to learn more about radon gas and pre-register to get one free radon test kit by Monday, October 26. This program is offering one free test kit per property, and limited quantities are available. Radon kits are also available for purchase through the BC Lung Association Radon Aware program. To order a long-term test kit, visit [radonaware.ca/radon-resources](http://radonaware.ca/radon-resources) or call 1-800-665-LUNG (5864).

For more information about radon, please check out the following links:

- [Health Canada – Radon gas: it's in your home](#)
- [BC Lung Association – Radon Aware](#)
- [Interior Health Authority – Radon webpage](#)
- [Take Action on Radon](#)
- [Canadian – National Radon Proficiency Program \(C-NRPP\)](#)

If you have any technical measurement or mitigation questions, please contact: Greg Baytalan, Air Quality Specialist at Interior Health by phone at 250- 469-7070 ext. 12273 or email at [Greg.Baytalan@interiorhealth.ca](mailto:Greg.Baytalan@interiorhealth.ca).

Regards,

Nancy Mora Castro, P. Eng. MSc., Regional Air Quality Coordinator | City of Kelowna | 250-469-8408 | [nmoracastro@kelowna.ca](mailto:nmoracastro@kelowna.ca)