

# GARDENS

## For Healthy Schools:

### A Scan of School Gardens in Waterloo Region

Community Garden Council  
of WATERLOO REGION



"Growing Healthy Communities"



Region of Waterloo

PUBLIC HEALTH AND  
EMERGENCY SERVICES



This report was produced through the Waterloo Region Healthy Communities Partnership by Sustainable Societies Consulting Group for the Community Garden Council of Waterloo Region and the Region of Waterloo Public Health.

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The opinions in this report are those of the authors and the members of the Community Garden Council of Waterloo Region and do not necessarily reflect the views of the funder or the supporters.

## Digital and Accessible Report Formats:

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[www.community-gardens.ca/content/school-gardens](http://www.community-gardens.ca/content/school-gardens)

This report is also available in a larger size font

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**Sustainable Societies Consulting Group**

Evaluation, Knowledge Mobilization & Collaboration Building  
for Environmental & Community Sustainability and Well-Being

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# About The Healthy Communities Partnership

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# About the Healthy Communities Partnership

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In May 2009, Region of Waterloo Public Health (Public Health) was asked by the Province to establish a Waterloo Region Healthy Communities Partnership (Partnership) to improve population health outcomes through the development of local healthy public policies in six health promotion priority areas – physical activity, sport and recreation, injury prevention, healthy eating, tobacco use/exposure, substance and alcohol misuse, and mental health promotion. The Partnership was formed in late 2009 and developed a twofold vision: to create a strong voice for health promotion in Waterloo Region, and to reflect the diversity of our community in decision-making. In March 2011, a Community Picture was released and identified three priority actions for the Partnership:

1. Implement the Healthy Community Food System Plan for Waterloo Region, which includes food skills and food access. Ensure that the plan addresses issues, which contribute to the viability of local farms and to ensure access to healthy eating options through the implementation of regional and municipal planning, human services, and zoning support.

2. Improve the affordability and availability of physical activity, sports and recreation opportunities, including active transportation, at the neighbourhood level and region wide (including formal and informal).

3. Use social determinants of health approach to address the underlying contributing factors associated with mental health and to advocate for stakeholders to adopt and fund such an approach.

Three existing and nascent networks stepped forward to guide next steps regarding these priority actions. The Waterloo Region Active Living Network, the Waterloo Region Food System Roundtable and the Mental Health Work Group agreed to act as the respective leads for the food system, physical activity and mental health priorities. Readers with questions regarding the Partnership or this report are welcome to contact Katherine Pigott at [kpigott@regionofwaterloo.ca](mailto:kpigott@regionofwaterloo.ca) or 519-575-4400 ext. 5415.



# About the Community Gardens in Waterloo Region

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The Community Garden Council of Waterloo Region ([www.community-gardens.ca](http://www.community-gardens.ca)) is a grass roots association formed to support the Community Garden Network and advocate for garden supports. The vision is to maintain and support community gardens so that residents have access to land to grow their own food. The council's main priority has been that of inclusion targeting newcomers, persons with disabilities and youth. They have been successful in assisting the formation of the Multicultural Community Garden Network and installing accessibility features into four area gardens. Their current goal is to engage youth in learning how to grow their own food in a sustainable way

The personal and community benefits of community gardening are well documented and have been captured in a recent evaluation, Community Gardening Storytelling Project (<http://chd.region.waterloo.on.ca/en/researchResourcesPublications/resources/>

[Community\\_Gardening\\_Storytelling\\_Project.pdf](#)). The project identified that people garden for a variety of reasons which can be grouped into three main themes; health benefits, social inclusion and to learn new things. These results reflect the key values of the Community Garden Council.

Readers with questions regarding the Community Garden Council are welcome to contact Carol Popovic at [cpopovic@regionofwaterloo.ca](mailto:cpopovic@regionofwaterloo.ca) or 519-575-4400 ext. 5336.

The perspective and recommendations expressed in this report belong to the consultant and do not necessarily reflect the perspective of the Ministry of Health and Long Term Care or Region of Waterloo Public Health.



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A close-up photograph of green leafy plants, likely chard, with prominent red veins. The plants are growing in a bed of dry straw or mulch. The lighting is bright, creating some shadows and highlights on the leaves.

# **Executive Summary**

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# Executive Summary

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Schools are increasingly being recognized as important sites for health promotion, and this recognition has led many school systems to broaden their focus to include a more holistic vision for student development. In its 2014 report “Achieving Excellence: A Renewed Vision for Education in Ontario”,<sup>1</sup> the Ontario Ministry of Education included promoting wellbeing as one of its four renewed goals for education, citing the important links between student cognitive, social, emotional, and physical wellbeing and academic success. School gardens are mentioned several times throughout the Ministry of Education’s “Foundations for a Healthy School”<sup>2</sup> as one tool for promoting wellbeing. This reflects an increase in the popularity of gardens as tools for increasing students’ knowledge of and access to healthy food, promoting outdoor and experiential education, and supporting academic success.

In order to understand how best to promote school gardens in Waterloo Region, the Community Garden Council (CGC) commissioned a School Garden Scan to synthesize the key research on school gardens, identify existing school gardens, and develop best practices and recommendations for school gardens in Waterloo Region. This report presents a summary of the key literature on school gardens, and of the results of a scan of school gardens in Waterloo Region.

**Methods:** Key research and policy on school gardens across Ontario and Canada were reviewed, as well as relevant research and case studies from across North America. A survey was distributed to all schools in the Waterloo Region District School Board in order to assess the number of school gardens, and staff perspectives on their benefits, barriers, and facilitating factors. Key informant interviews were conducted with stakeholders and experts in school gardens, and focus groups were held with students and staff at two local schools.

**Results:** School gardens are recommended not only within the Healthy Schools Framework, but also across various areas of health and education policy in Ontario. The literature on school gardens demonstrates that they can have many benefits for students, staff, and communities, including improved academic outcomes, increased physical activity, reduced stress, and an increased sense of community.

Focus group and interview participants reported overwhelmingly positive experiences with school gardens, but also experienced challenges in initiating and maintaining school gardens. Key challenges included: time, funding, staff support, and school infrastructure. Students and staff were able to find innovative ways to overcome these challenges, but identified several priorities for change, including increasing community partnerships, and developing guidelines and resources for school gardens.

... **improved academic outcomes, increased physical activity, reduced stress, and an increased sense of community.**

**Recommendations:** Based on the results of this scan, it is recommended that the CGC:

- Bring together local teachers, school administrators, gardening organizations, and possibly universities to discuss ways to collaborate to support school gardens.
- Explore developing a broader, long-term coalition of school garden stakeholders that can inform and support community garden development from multiple perspectives
- Develop a school garden plan outlining short-term, mid-term, and long-term actions on the identified priorities. This plan can also inform school garden guideline, resource, and program development in the school boards and at the regional and municipal levels by highlighting key areas for change and offering concrete changes to be supported by key policy actors

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# Background and Purpose

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# Background and Purpose

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Schools are increasingly being recognized as important sites for health promotion, and this recognition has led many school systems to broaden their focus to include a more holistic vision for student development. In its 2014 report “Achieving Excellence: A Renewed Vision for Education in Ontario”,<sup>2</sup> the Ontario Ministry of Education included promoting wellbeing as one of its four renewed goals for education, citing the important links between student cognitive, social, emotional, and physical wellbeing and academic success. The Ministry’s framework for student health promotion is further expanded in “Foundations for a Healthy School”,<sup>2</sup> which highlights five key areas that contribute to a healthy school: curriculum, teaching and learning; school and classroom leadership, student engagement, social and physical environments; and home, school, and community partnerships. The framework promotes an integrated approach to linking curriculum and health-related topics, including physical activity, healthy eating, growth and development, and mental health.

School gardens are mentioned several times throughout the Foundations for a Healthy School as one tool for promoting wellbeing. This reflects an increase in the popularity of gardens as tools for increasing students’ knowledge of and access to healthy food, promoting outdoor and experiential education, and supporting

academic success. Across Canada, there is a growing movement for school gardens, driven by innovative school programs and community advocacy initiatives such as the Imagine a Garden in Every School Campaign, the Ontario Edible Education Network, and Farm to School projects.

Community Garden Council of Waterloo Region’s School Garden Scan Working Group formed in response to community interest in school gardens, and findings of a 2013 Woolwich Healthy Communities project, Local Food Access and Active Transportation: Policy Opportunities for the Woolwich Community. One of the themes for action centered on supporting programs at schools that build youth participation and community involvement towards healthy local food and community gardens.

The CGC’s vision is to create a movement for school gardens as tools for learning and health in schools across Waterloo Region. In order to understand how best to promote school gardens in Waterloo Region, the CGC commissioned a School Garden Scan to synthesize the key research on school gardens, identify existing school gardens, and develop best practices and recommendations for school gardens in Waterloo Region.

# Healthy Schools

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**The Research is Clear: healthy students are better prepared to learn, and education is a key determinant of health.**

(Foundations for a Healthy School, 2014)

In 2013, the Ontario government released a new policy report focused on child health, *No Time to Wait: The Healthy Kids Strategy*.<sup>4</sup> Since school-aged children spend 40% of their day in school; the report recognizes schools as important contexts for health promotion, and the connections between environment, wellbeing, and learning. The Ministry of Education's innovative health strategy is outlined in its *Foundations for a Healthy School Framework*<sup>5</sup>, which is intended to support schools implement the Healthy Kids policy by developing programs and initiatives in partnership with school boards, parents, and community partners. This framework synthesizes existing policies from public health, education, and sustainability that had previously been covered by different organizations at multiple levels of governance, creating barriers to building school programs that link health, sustainability, community development, and education.

The broader policy context for school gardens is summarized in Table 1 below. All of these policies encourage or permit school gardens, but none outline specific guidelines or resources for school gardens, making development, jurisdiction, and longer-term responsibility a challenge.



Table 1. Policy Context for School Gardens

| Governing Body |  | Relevant Policy  |
|----------------|--|--|
| Federal        | Public Health Agency of Canada                         | <ul style="list-style-type: none"> <li>Population health policy<sup>6</sup></li> </ul>   |
|                | Pan-Canadian Joint Consortium for School Health (JCSH) | <ul style="list-style-type: none"> <li>National Framework for Comprehensive School Health<sup>7</sup></li> </ul>   |
| Provincial     | Ontario Ministry of Education                          | <ul style="list-style-type: none"> <li>Foundations for a Healthy School (2014)<sup>2</sup></li> <li>Acting Today, Shaping Tomorrow: A policy framework for environmental education in Ontario schools (ATST).<sup>8</sup></li> <li>Healthy Food for Healthy Schools Act (2008)<sup>9</sup></li> <li>School Food and Beverage Policy (2010)<sup>10</sup></li> </ul> |
|                | Ontario Ministry of Health and Long-Term Care          | <ul style="list-style-type: none"> <li>No Time to Wait: The Healthy Kids Strategy (2013)<sup>4</sup></li> </ul>  |
| Municipal      | Waterloo Region District School Board                  | <ul style="list-style-type: none"> <li>Board Policy on Environmental Values (Board Policy 2000)<sup>11</sup></li> <li>Board policy on outdoor and off-campus education (Board Policy 6004)<sup>12</sup></li> </ul>   |
|                | Waterloo Catholic District School Board                | <ul style="list-style-type: none"> <li>Sustainable Development Policy (APO025)<sup>13</sup></li> </ul>   |
|                | Region of Waterloo                                     | <ul style="list-style-type: none"> <li>Waterloo Region Food Charter<sup>14</sup></li> <li>Regional Official Plan<sup>15</sup></li> </ul>   |

# Healthy Schools Framework

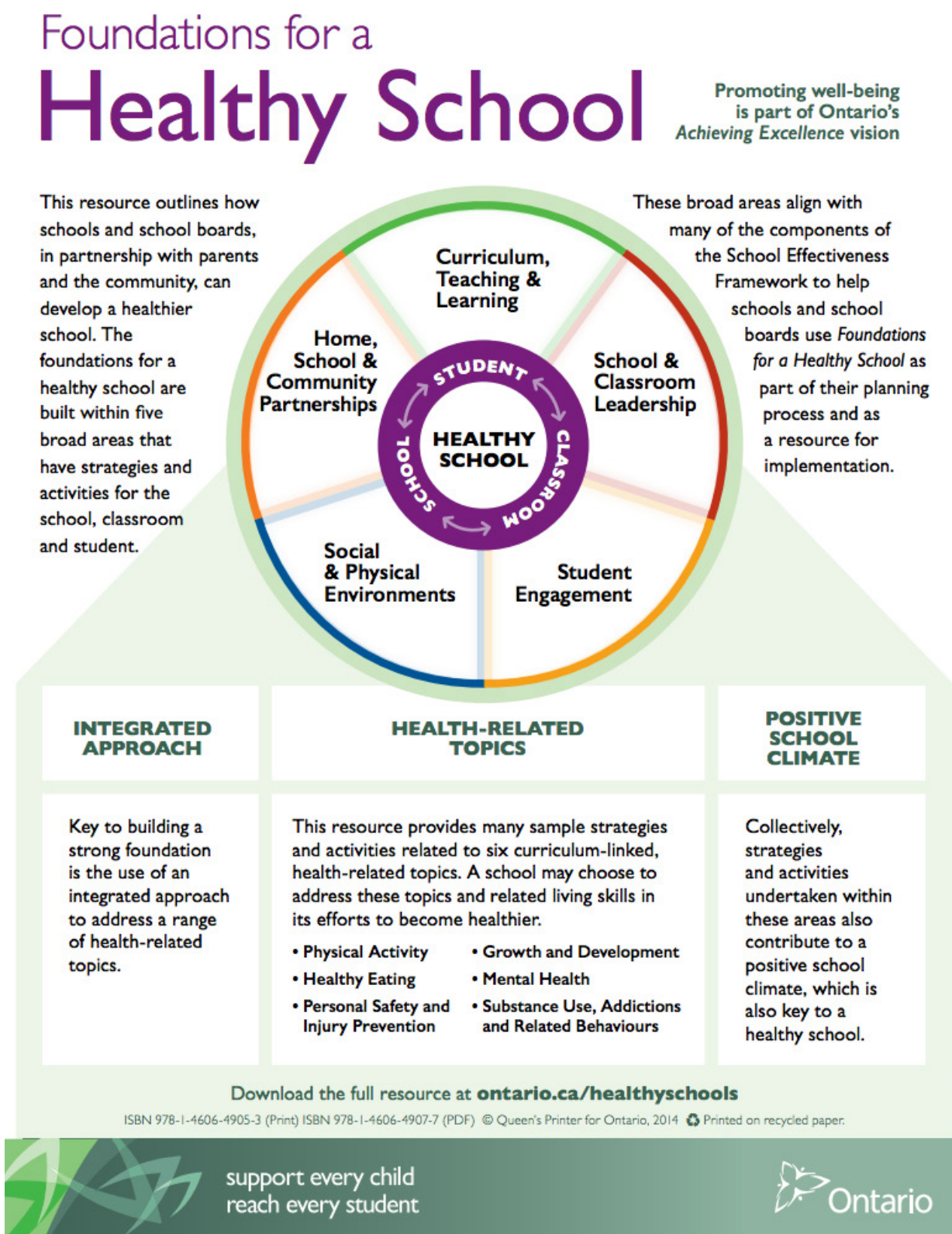
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The Healthy Schools Framework is built around five pillars: curriculum, teaching and learning; school and classroom leadership, student engagement, social and physical environments; and home, school, and community partnerships, and brings together elements of curriculum, community development, and health promotion that were previously addressed by separate policies at the federal and provincial level. The Healthy Schools framework provides a more ecological model for education, highlighting connections between students' learning and their environment, wellbeing, and personal development, and promotes a more integrated and interdisciplinary approach to education. The framework is summarized in Figure 1 below.

OPHEA provides support for the Healthy Schools initiative by facilitating the planning and implementation of health-related activities, and providing curriculum tools for teachers. To support the implementation of the Healthy Schools Framework, OPHEA is also piloting a new Provincial Healthy Schools certification, which supports schools



Figure 1. Healthy Schools Framework (© Queen’s Printer for Ontario, 2015)





# Gardens for Healthy Schools

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School gardens are becoming increasingly popular as interventions to support student's wellbeing and academic success in schools across North America. School gardens have been shown to have many concrete benefits for students, schools, and communities. There is evidence that school gardens can provide enhanced learning opportunities, improve academic performance, improve students' nutrition knowledge and behaviour, promote wellbeing, increase environmental awareness, and build community within and around schools.

The Healthy Schools Framework identifies school food gardens as resources for developing a healthy environment and supporting healthy eating. Throughout the framework, school gardens are mentioned as tools for integrating health, environmental sustainability, and other topics into curriculum, and for providing opportunities for student and community engagement. While the existence of a school garden can improve the physical environment, school gardens have the greatest impact when students are engaged through curriculum and community partnerships. School gardens can also contribute to quality instruction through the environmental education framework, act as a focal point for community partnerships, and contribute to a supportive social environment.



# Evidence for School Gardens

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School gardens have been shown to have many concrete benefits for students, schools, and communities. There is evidence that school gardens can provide enhanced learning opportunities, improve academic performance, improve nutrition knowledge and behaviour, promote wellbeing, and increase environmental awareness, and build community within and around schools.

## Academic Benefits

Academic benefits of school gardens include opportunities for experiential and interdisciplinary learning and differentiated teaching and learning to support students with various learning styles. For example, students have an increased desire to learn; and improved performance in environmental sciences, biology, and mathematics, as well as the arts and humanities.

Integrating school gardens into curriculum can also help prepare students for jobs in the emerging green economy. A 2008 report from the United Nations Environment Programme concluded that a global shift toward a low-carbon, sustainable economy could be an engine for development, adding large numbers of

green jobs across many sectors.<sup>17</sup> The report argued that the global pace of green job creation is likely to accelerate in the years ahead, but that increased investment is essential to develop these jobs and facilitate this economic transition. Through the Student Success Initiative, many Ontario secondary schools offer programs called Specialist High Skills Majors

**Integrating school gardens into curriculum can also help prepare students for jobs in the emerging green economy.**

(SHSM), which offer students opportunities to focus their learning on skills related to a specific economic sector while meeting the requirements to graduate from high school. It also provides engaging alternative learning opportunities for students who have not been engaged by traditional curriculum.

## Health Promotion

In addition to their academic benefits, school gardens have become sites for promoting student health by teaching students about food systems, improving their knowledge of and access to nutrition, and providing opportunities for physical activity.

Studies of the health impacts of school gardens have found that they can increase students' nutrition knowledge, have positive impacts on their eating attitudes, and change their eating behaviour. Participation in school garden programs has been linked to increased consumption of fruits and vegetables,<sup>18</sup> and to increased interest in and willingness to try new fruits and vegetables.<sup>19</sup> School gardens have also been shown to increase student's level of physical activity, particularly if they were less physically active prior to participating in a garden program.<sup>20</sup> School gardens also increase access to green space at school, and facilitate students' connection to nature, which are important both for environmental sustainability and health promotion in an urbanizing world.<sup>21</sup>

## Positive Youth Development

In addition to these direct academic and health benefits, school gardens have the potential to contribute to students' social development, promote citizenship and social cohesion, and build community outside of the school. School gardens have been described as systemic interventions that have the potential to not only make physical changes to school grounds, but also more importantly to strengthen the school environment as a setting for positive youth development.<sup>22</sup>

Creating gardens on school grounds not only changes the physical space, but also can have important impacts on student affect and a school's social climate. One Canadian study of nature-focused school design found that gardens and green space in play environments lead to a sense of freedom, joy, and social cohesiveness among students.<sup>23</sup>



# Best Practices for School Gardens

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School gardens are a relatively recent area of study, but given the evidence for their benefits and the increasing interest in gardens from communities and schools, reports are beginning to emerge to outline the development processes of existing garden programs, and the best practices learned from these programs. The existing research on school gardens and the experiences of staff and students involved in school gardens highlight two key practices for successful school gardens: creating specific local school garden resources and guidelines, and building partnerships to support school gardens.

While school gardens are supported through multiple health and education policies at the provincial level, and by WRDSB and WCDSB grounds greening and student wellbeing policies, there are no clear guidelines outlining processes for school garden development and maintenance.

The establishment of clear guidelines and procedures can help schools plan to reduce barriers in terms of maintenance and sustainability, and connect schools with resources to support their

garden. The Vancouver School Board (VSB) and the Thunder Bay Catholic District School Board (TBCDSB) provide two Canadian examples of school garden programs that have worked with stakeholders to develop guidelines and resources to support school gardens:

## Guidelines and Resources

The VSB's Think & Eat Green @ School program (<http://thinkeatgreen.ca/>) provides an excellent example of a school garden program that outlines steps for developing and implementing

**The policy was implemented in 2010, and as of 2015 more than two thirds of the VSB's 109 schools have a school garden. <sup>24</sup>**

a school garden. The VSB school food garden program demonstrates board support, and outlines a clear process for establishing gardens. The policy also links to school curriculum, with input from students, staff, and education experts.



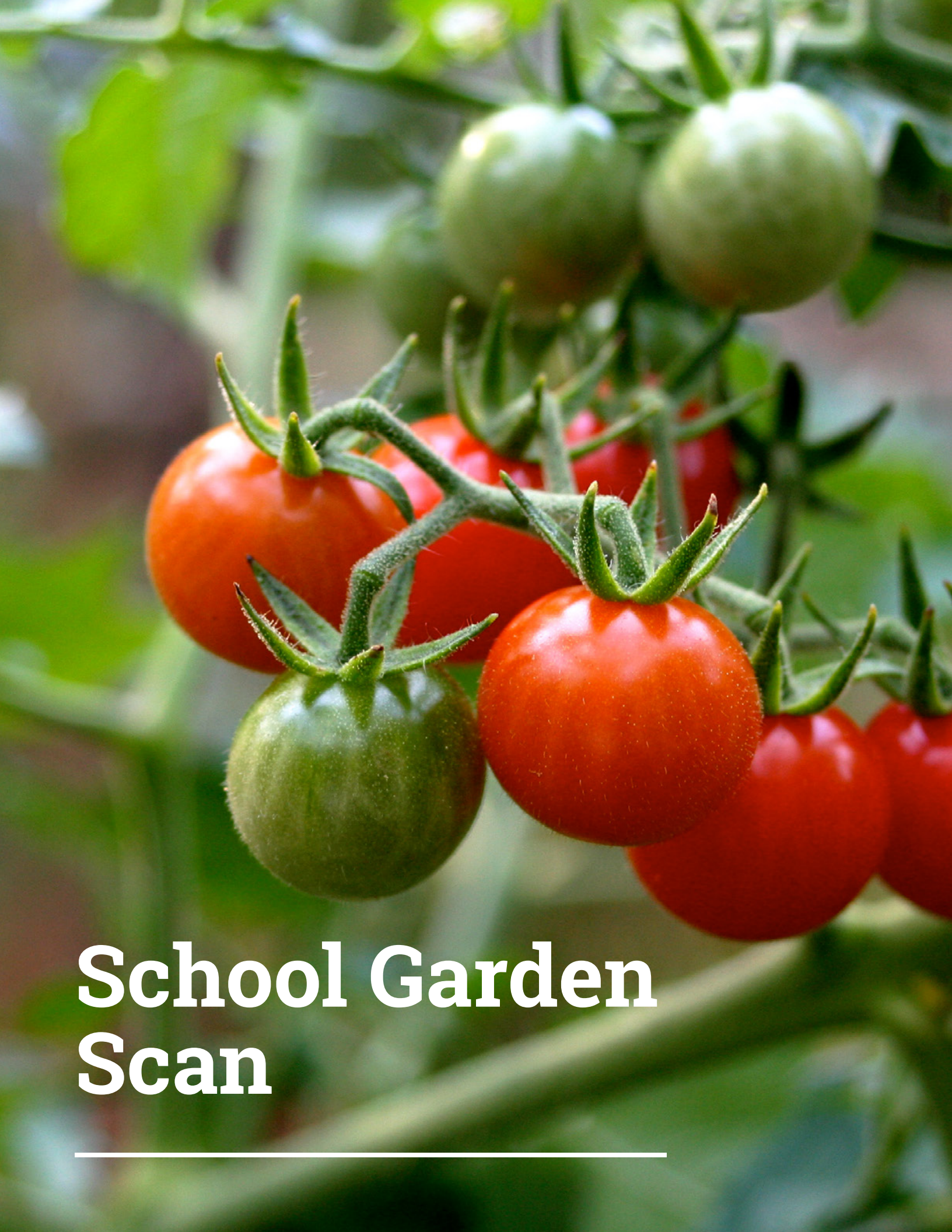
Finally, the policy was developed through a strong partnership with the local food movement, garnering support for the expansion of gardens, and encourages further community partnerships for maintaining gardens over the summer. The policy was implemented in 2010, and as of 2015 more than two thirds of the VSB's 109 schools have a school garden.<sup>24</sup>

The Thunder Bay Catholic District School Board's (TBCDSB) 2013 school garden policy<sup>25</sup> offers an example of a more local policy that fits within the Ontario Ministry of Education's policies. The TBCDSB model recognizes the important role that school food gardens and garden-based learning can play in education, and outlines guidelines for a successful and sustainable garden project.

## Partnerships

Evidence from school policy projects and existing school garden programs suggests that school gardens are best supported by partnerships between schools, communities, local governments, and non-profit organizations. The inclusion of multiple stakeholders in school garden development not only helps share resources and reduces barriers for schools, but also helps develop healthy and sustainable communities, and shares the benefits of gardens for students, staff, and communities.

The VSB school garden program was developed through a large-scale Community-University Research Alliance project funded by the Social Sciences and Humanities Research Council called Think & Eat Green @ School, including representatives from the VSB, the University of British Columbia, the Vancouver Food Policy Council, Centre for Sustainable Community Development, and Vancouver Coastal Health, and provides a model for further school garden collaborations.<sup>26</sup>



# School Garden Scan

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# School Garden Scan

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In order to identify local school gardens and the local context of school garden development, the Community Garden Council launched a school garden scan. A survey was distributed to all WRDSB staff through the school principals to identify school gardens and obtain a snapshot of school staff perspectives on school gardens. Focus groups and interviews were also conducted with teachers, staff, and students at Waterloo Region District School Board

(WRDSB) schools with gardens, and other community garden stakeholders to gain a better understanding of their experiences with school gardens, the benefits of these programs, and the barriers and facilitating factors for creating school gardens. A research application was also submitted to the Waterloo Catholic District School Board, but WCDSB staff was unable to participate due to research capacity limitations.



# Methods

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**Survey:** The School Garden Survey was distributed via email to principals at the 103 WRDSB schools. The survey invitation was directed to all staff, including principals, administrative staff, teachers, educational assistants, and facilities staff. The survey included demographic questions intended to capture the number and type of school gardens in Waterloo Region, as well as questions about perceived barriers to, and facilitating factors and benefits of school gardens. The survey also asked participants to identify priorities for action to facilitate school gardens in the WRDSB.

**Key informant interviews:** Key informants were initially identified by the Community Garden Council, and additional key informants were added based on information gathered through interviews and background research. Sixteen key informant interviews were conducted with representatives from schools, school boards, and non-profit organizations supporting community gardens, as well as parents and community members involved in school garden projects. Depending on their involvement and areas of expertise, key informants were asked about their experiences with school food gardens, their perspectives on school gardens policies and resources, and the barriers and facilitating factors they perceived for developing and operating school gardens.

**Focus Groups:** All WRDSB schools with gardens were invited to participate in focus groups. Focus groups were conducted with 35 students and five staff members at two Waterloo Region Schools: Kitchener Collegiate Institute (KCI) and Eastwood Collegiate Institute (ECI). Thirty students and one teacher participated in the focus group held at KCI, and five students and four staff members participated in the focus group held at ECI. Focus group participants were asked about their experiences with school food gardens, the benefits they perceived to having school gardens, and the barriers to and facilitators of developing and maintaining school food gardens.

# Survey Summary

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Participants in the survey focus groups, and interviews identified many benefits to school gardens, and overall indicated great support for school garden projects. Schools that had existing food gardens reported several key challenges to starting and maintaining school gardens, but also reported innovative solutions to overcome them.

Survey responses were received from 40 participants at 19 schools from across Waterloo Region, including 15 primary and four secondary schools. Of these schools, 53% of respondents reported that their school currently had a garden, four percent reported that their school had a garden in the past, 11% indicated that their school was planning a garden, and 32% reported that their school did not have a garden. Among the eleven schools that did not have gardens, the most significant reported barriers were time constraints, lack of funding, and lack of staff support or interest. Inadequate space and infrastructure barriers such as water access were also frequently reported as barriers to starting a garden.

Of the nine participating schools that had gardens, seven incorporated native plants and pollinators, four were food gardens, and three were community gardens. All of these gardens had teachers involved in initiating them, while 22% had students involved, 17% had parents

involved, 22% had administrators involved, and only one garden reported having support staff involved in planning. Students and teachers were most frequently reported to be highly involved in maintaining gardens, while parents, administrative staff, and other community members were less likely to be involved in maintaining school gardens.



**...barriers were time constraints, lack of funding, and lack of staff support or interest**

Detailed profiles of local school gardens can be found in appendix A at the end of this report.

## Garden Benefits

Participants were asked to rate the degree to which they perceived their school garden had impact on students on several dimensions. No negative impacts were reported.

Respondents most frequently reported that school gardens had a large positive impact on teamwork and collaboration skills, environmental attitudes, sense of community and attitudes toward school.

## Barriers for Gardens

Survey participants were asked to identify key barriers and challenges for school gardens. The top five reported barriers for school gardens reported by survey participants were:

- Time constraints;
- Lack of funding;
- Lack of support or interest from staff,
- Infrastructure challenges such as space or water access.
- Lack of resources such as curriculum materials and garden toolkits

There were no differences between schools with or without gardens in these barriers, which may indicate that these are challenges in both starting and maintaining gardens.

## Facilitating Factors

The respondents from schools that had gardens were asked what factors facilitated their school garden. The four most frequently endorsed facilitators of school gardens were:

- Support and interest from staff;
- School space and geographic location
- Community support;
- Funding.

## Priorities for Action

Survey participants were also asked what they believed to be the top priorities for change to support school gardens in Waterloo Region. Among schools with gardens, the top two priorities were staff engagement (endorsed by 71%) and community partnerships (57%), followed by infrastructure changes, resources such as toolkits and curriculum, and student engagement equally supported by 47%. For schools without gardens, the top priorities were resources (67%), community partnerships (58%), and staff engagement (58%), followed by infrastructure (50%) and student engagement (33%).

While community partnerships and staff engagement were a clear common priority, the differences in priorities also demonstrate that schools that currently have gardens have different needs for support in maintaining them, compared to schools seeking to start gardens that may be prioritizing resources to help them overcome initial barriers. These priorities clearly fit with the common barriers and facilitating factors reported by schools with and without gardens.





# Focus Groups and Interviews

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## Student Experiences

Thirty-five students shared their experiences with school gardens in focus group sessions. Students in the focus groups reported overwhelmingly positive experiences with gardens, and described many benefits of participating in school gardens, including stress reduction, opportunities for hands-on learning, increased outdoor time and physical activity, skill development, and community connection. Key themes from student focus group participants are summarized below with selected quotes to illustrate student perspectives.

### Hands-on Learning

Students described having opportunities to work and learn in the garden as being particularly enjoyable and motivating, particularly where there were animals involved:

*"You feel so much better. It's refreshing when you're more involved and actually, like, doing something. "*

*"I really like the hands on stuff...especially with the goats... "*

Several students discussed feeling motivated to apply skills they learned in their school gardens at home:

*"I find that it's motivated me a lot... After this class you understand more and you see*

*plants and you see animals in a different way. And this year I've got my little project. I've got my balcony and I'm going to try to have a vegetable garden, have everything I can in a small space, and it's an awesome challenge."*

Other students discovered a passion for environmental or food-related work through garden-based courses or volunteering in the garden:

*"I actually took (the environment class) as a filler, and now I'm going into it in university. Yeah, I tried it out, I was just like, hey, why, not? And now it's my favourite thing in the world. "*

In addition to finding career goals and extending their learning to home gardens, one student connected participating in her school garden to her motivation to live more environmentally consciously:

*"We have a garden in our backyard at home now... I think it just helps, like I was already interested, I was raised with it and that seed was planted, but now ... every day it's actually like you're constantly inspired. It's a reminder of like, why... It reminds me every day to live consciously."*

## Health Benefits

Students reported that having a garden on campus, and having classes where they work with plants and animals was a form of stress reduction:

*"I like just being around with the plants... it's kind of calming. It is. You don't feel stressed, because sometimes you've got heavy courses and whatever, but here it's nice and calm."*

Time spent outdoors was another element that the students valued:

*"As soon as it's nice outside like every day we're outside, which is a really big bonus."*

Several students made connections between their time spent outdoors in the garden and the importance of connecting with nature, and found that having time to reconnect with nature further motivated them to participate in their school garden:

*"It makes you feel more connected. And like, the more and more you are in nature it makes you, I don't know, you feel better. That feeling you get because we're so deficient in it, the feeling you get when you're around it and you're working in it, that's what keeps you coming back. You crave it almost."*

## Building Community

Students reported that the gardens gave them a chance to connect with other students that they might not otherwise have met, and that the enthusiasm of other students for the garden was inspiring for them:

*"I think one of the best things is that you meet other people. Like when I first started it was like this group of like grade 11, 12s and they were really passionate about it, and it made me really passionate about it. That's one of the biggest things is like, seeing your peers be really passionate about it, it makes you wanna find what you want to do."*

Students also reported that the gardens and support from other students helped build a broader sense of pride in their school and community.

*"I've got a couple of friends who will come out to the club or will come to visit because they know how much I love this program. They might not take the class, but they come and they support it 100%."*

## Staff Perspectives

Staff shared their experiences and perspectives on school gardens through the focus groups, key informant interviews, and open-ended survey questions. Key themes from staff participants are summarized below, along with selected quotes.

### Teaching Experience

Staff also reported enjoying the alternative learning format, and being able to work with students in different learning settings:

*"For me I like being able to work with the students rather than just being at the front teaching them."*

Teachers also reported feeling the benefits of time spent outdoors and in nature:

*"I love it as a teacher, going out there, even without these guys. It's that fresh air during the day that just revitalizes you. "*

### **Student development**

Staff reported that gardens contributed to student development in several ways, from increasing environmental awareness and building a more respectful school environment, to developing confidence and citizenship skills. In particular, working with animals seemed to give some students who did not perform well in traditional classroom environments to engage and build confidence.

*"Some students don't shine in class, but with the animals, they shine."*

Like students, teachers saw gardens as an opportunity to take ownership and pride in the school environment, leading to a more respectful school community:

*"Character Development... Respect... when we respect our environment and respect our land around our building, it sets the stage for respect inside the building. "*

Not only did staff see gardens as sites for developing engaged students in their schools, many also described the more holistic development benefits of gardening, including developing ecological consciousness and engagement with broader communities:

*"This is an area where I think the more exposure children have to how food is grown, plants are grown, the whole natural cycle takes place etc. - then the more we create a healthy interest about how and what we do and eat has effects on our health, body and mind - it would only serve to heighten this awareness and create healthier communities - not to mention more responsible and contributing citizens - the whole concept is such a community builder for both school and living area."*





# Challenges

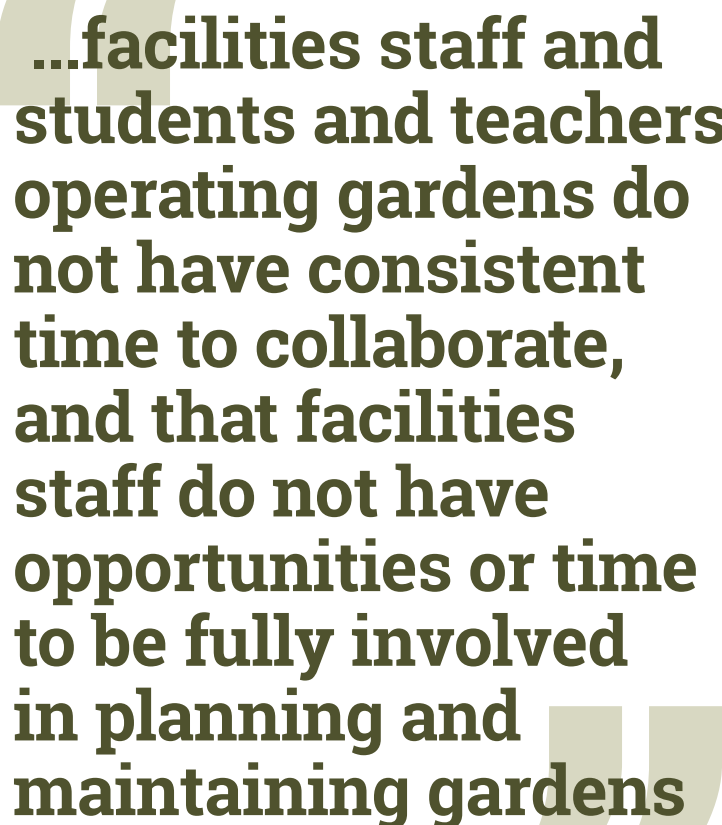
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Staff participants in both the survey and focus groups described several key challenges for school gardens. The primary barriers identified by the survey and staff and student discussions were related to time and funding.

In terms of time, 66% of survey participants rated time as a significant barrier to school gardens. In focus groups, staff reported challenges in terms of organizing and maintaining a garden in addition to their official roles as teachers, administrators, and support staff, while students discussed struggling to fit garden-based courses and extracurricular activities into their schedules in addition to required courses and other extracurricular activities.

Long-term sustainability was an additional barrier, particularly when student turnover is high, and teachers often rotate between schools over their careers. Over-reliance on a small number of staff or student champions has led to some gardens being abandoned once the primary coordinators leave the school, leading to administrative and facilities concerns about the long-term prospects for school gardens.

*"The sustainability for garden initiatives is my greatest concern. With the right people in place, it can be great, but when those people move on and no one else takes on the initiative, then I have witnessed garden programs and initiatives completely fall apart and actually provide a negative component to the school's outdoor environment. People start to become defeated because the project becomes*



**...facilities staff and students and teachers operating gardens do not have consistent time to collaborate, and that facilities staff do not have opportunities or time to be fully involved in planning and maintaining gardens**

*so overgrown and out of control that it is overwhelming. It really takes leadership from staff to make it work so that it is integrated into the curriculum..." - Principal*

*"You really need a number of teachers in house who are passionate about it to see it maintained over time." - Principal*

*"Our kids do a lot... so the extra commitment for them and for us, it just... a lot of us are at our max." - Teacher*

Another time-related issue was summer maintenance. Since the school year does not align with the growing season, most school gardens relied on teachers and community volunteers to maintain the garden over the summer, which led to challenges around access to the gardens and maintenance resources. This can put additional demands on teachers' limited time, and also raised concerns over long-term sustainability of gardens due to student and staff turnover.

Another set of barriers was related to the perceptions of disconnection between teaching and facilities staff. While participating facilities staff were supportive of school gardens, they had concerns about maintenance and health and safety issues. They experienced additional demands on their time to build garden maintenance into their facilities work and plans. Teachers also reported challenges related to campus construction projects that affected their gardens, and determining scope of responsibility for garden grounds maintenance. One potential source of these barriers was the fact that many schools do not have dedicated outdoor grounds support staff, instead sharing staff with multiple schools.

This means that facilities staff and students and teachers operating gardens do not have consistent time to collaborate, and that facilities staff do not have opportunities or time to be fully involved in planning and maintaining gardens. A staff member who participated in the survey stated:

*"I think facilities staff would love to see, and be a part of, a well maintained garden or gardens. The problem lies in when the garden(s)*

*maintenance falls completely in the facilities staff's lap with no helping hand from students or community. It becomes one more job (in a very gray area of what my job description is) in an already busy day. A well maintained garden looks great on a facilities' grounds, a poorly maintained garden takes away from the look of a facility."*

A final set of barriers was related to school infrastructure and security policies. Several gardens experienced challenges obtaining water and storing tools for their gardens. These infrastructure issues were further complicated for community volunteers who wished to maintain the garden outside of school time, as security concerns limited their access to grounds and resources on school property. For example, one school focus group discussed the challenges of coordinating summer maintenance with community volunteers, including obtaining permission and means to access the gardens' water supply, which had to be switched on from inside the school, and gardening tools, which are required to be locked in a tool shed when not in use.

It adds a different element when you add a community garden, because they have to have access to water all the time, and when we're not in school... whereas we can water the garden all the time when we're here. And you have to all of a sudden hand over control over school facilities to someone that might not be a part of the school, and there's a lot of paperwork involved in that... So that's a bit of a challenge.

# Facilitating Factors

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While school gardens in Waterloo Region reported many challenges, they also found innovative solutions for building and supporting their gardens, and were following many of the best practices recommended by the literature on school gardens.

Student and staff engagement was key to supporting gardens. As one key informant put it, “school gardens need champions, and those champions need to come from within schools”. Student and teacher support in terms of garden maintenance, fundraising help, and planning were vital to starting and maintaining school gardens. Creative solutions for overcoming garden challenges included creating opportunities for students to work on gardens through co-op programs or to fulfill their community service requirements. While this did require significant work from students and staff, participants reported feeling that the benefits of the garden were worth the work.

*“Other schools should know the commitment. It is a commitment, and to have that organized, like what are you doing during the summer. It’s not hard, you just have to figure that out.” - Teacher*

Opportunities to build fundraising activities into gardening programs were a common facilitator discussed in the focus groups. Both ECI and KCI sold produce from their gardens at farmers’ markets, and described these markets not only as financial supports, but also opportunities to develop business skills and connect with community.



*“The Market days are huge. Almost everyone in the whole school comes out.” – Student*

*“Last year and the year before we’ve been selling produce at the school.... we sell it mostly to the staff not the students, but the staff love it.” – Student*

Community support was another important facilitating factor, and has the potential to significantly reduce the barriers for students and staff. This support took many forms, from community-initiated gardens such as the Crestview community garden, to construction time and materials such as those donated by the Elmira Secondary School community, to contributions to garden maintenance. Community members also supported school gardens by purchasing produce grown by students, and sharing gardening skills and resources with students and staff.

Support from school administration and school board staff and trustees were also valuable in facilitating school gardens. Principals were key players in navigating planning and obtaining permission for school gardens, and in some

cases were able to allocate some funding for gardens, despite many budget constraints, and trustees were also helpful in terms of championing garden projects, and obtaining support from board administration and community members.

Facilities staff support was a final internal facilitator of school gardens. While not all schools were able to work directly with facilities staff, those who had the opportunity reported that having facilities staff on board helped with planning and implementation. Facilities staff participating in the survey also reported a desire to be involved in school garden planning in order to plan for sustainability.

## Partnerships

Partnerships were also identified by focus group and key informant interview participants as important facilitators of school gardens. In addition to within-board partners such as trustees and facilities staff, local government and external organizations have the potential to facilitate school gardens.





# Recommendations

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# Recommendations

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Building healthier schools is a key priority for schools in Ontario, as outlined in the Healthy Schools Framework. As the experiences described by WRDSB staff and students above demonstrate, school gardens have many benefits for learning and wellbeing, and can make great contributions to healthier schools.

While there are challenges in starting and maintaining school gardens, local schools have found creative solutions to overcome them, such as running school markets to sell their produce, and working with local environmental organizations to develop rainwater collection when water is not available. In addition to these local solutions, both the best practices from the literature on school gardens, and the priorities for change identified by the survey and focus group participants offer additional ways to support these beneficial programs.

Based on the results of this review, and the information provided, the following actions are recommended to the Community Garden Council of Waterloo Region:

- Bring together local teachers, school administrators, gardening organizations, and possibly universities to discuss ways to collaborate to support school gardens.
- Explore developing a broader, long-term coalition of school garden stakeholders that can inform and support community garden development from multiple perspectives
- Develop a school garden plan outlining short-term, mid-term, and long-term actions on the identified priorities. This plan can also inform school garden guideline, resource, and program development in the school boards and at the regional and municipal levels by highlighting key areas for change and offering concrete changes to be supported by key policy actors

## Collaboration

Many of the staff facilitating gardens at their schools were not connected with other school gardeners, and some were not aware that there were other garden programs in WRDSB schools. Bringing together local teachers, students, and school administrators, to share their experiences and resources is a simple first step to increasing collaboration and supporting school gardens. The participating school gardens had learned a great deal from their experiences, and developed creative solutions to the challenges they faced, and sharing their experiences and solutions with other schools could help overcome some of the challenges facing other gardens or barriers to starting new ones.



This collaboration could include not only sharing existing resources that schools have found useful, but also developing local resources based on the experience of current school gardens, such as workshops, toolkits, or classroom activities, to supplement more generic resources.

programs are included, and that programs and resources developed to support school gardens will be successful in engaging youth in longer-term school garden support.

One potential action for supporting youth involvement in school gardens outside of class

is to develop youth gardening and leadership programs, such as the ones operated in Toronto through the partnership between Green Thumbs Growing Kids and Toronto Public Health, and Foodshare and the TDSB. These programs allow youth to be involved in school-based gardening programs without enrolling in specific courses, and can further foster youth engagement, community development, and leadership in sustainability. Summer gardening programs can also help address the challenges of summer maintenance for schools where staff cannot take care of the garden during the summer term,

and foster longer-term engagement to avoid issue with staff or student turnover by engaging external partners for support in garden coordination, and supporting youth leaders in engaging their peers.

**The participating school gardens had learned a great deal from their experiences, and developed creative solutions to the challenges they faced...**

## Student Engagement

Students are important partners in supporting school gardens, and the students involved in existing programs were excited to engage their peers and further support gardens in Waterloo region. Engaging students in planning and action to support school gardens is vital to ensure that the voices of those directly impacted by these



# References

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# References

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1. Ontario Ministry of Education (2014). Achieving Excellence: A Renewed Vision for Education in Ontario. Retrieved from <http://www.edu.gov.on.ca/eng/about/renewedVision.pdf> July 13, 2014. Queen's Printer for Ontario.
2. Ministry of Education (2014) Foundations for a Healthy School
3. <http://chd.region.waterloo.on.ca/en/researchResourcesPublications/resources/LocalFoodAccessActiveTransportation.pdf>
4. Healthy Kids Panel (2013). No Time To Wait: The Healthy Kids Strategy. Report to the Ontario Ministry of Health and Long-Term Care
5. Ontario Ministry of Education (2014.) Healthy Schools Framework
6. Towards A Common Understanding: Clarifying the Core Concepts of Population Health, A Public Health Agency of Canada Discussion Paper
7. National Framework for Comprehensive School Health
8. Ontario Ministry of Education (2009). Acting Today, Shaping Tomorrow: A policy framework for environmental education in Ontario schools. Queen's Printer for Ontario.
9. Government of Ontario (2008). Healthy Food for Healthy Schools Act. Retrieved from [http://www.e-laws.gov.on.ca/html/source/statutes/english/2008/elaws\\_src\\_s08002\\_e.htm](http://www.e-laws.gov.on.ca/html/source/statutes/english/2008/elaws_src_s08002_e.htm)
10. Government of Ontario (2010). Policy/Program Memorandum No. 150: School Food and Beverage Policy. Retrieved from <http://www.edu.gov.on.ca/extra/eng/ppm/150.html>
11. Board Policy on Environmental Values (Board Policy 2000)
12. Board policy on outdoor and off-campus education (Board Policy 6004)
13. Sustainable Development Policy (APO025)
14. Waterloo Region Food Charter
15. Regional Official Plan
16. Provincial Healthy Schools certification

17. United Nations Environment Programme, International Environmental Education Programme. The Belgrade Charter: a framework for environmental education. UNESCO/UNEP. Retrieved from [http://unesdoc.unesco.org/Ulis/cgi-bin/ulis.pl?catno=17772&set=53AC7E24\\_0\\_198&gp=0&lin=1&ll=1](http://unesdoc.unesco.org/Ulis/cgi-bin/ulis.pl?catno=17772&set=53AC7E24_0_198&gp=0&lin=1&ll=1) June
18. Langellotto, G.A. & Gupta, A. (2012) Gardening Increases Vegetable Consumption in School- aged Children: A Meta-analytical Synthesis. *HortTechnology* 22(4).
19. Libman, K. (2007). Growing youth growing food: How vegetable gardening influences young people's food consciousness and eating habits. *Applied Environmental Education & Communication*, 6(1), 87-95.
20. Ozer E. The effects of school gardens in students and schools: conceptualization and considerations for maximizing healthy development. *Health Education and Behavior*. 2007; 34:846-863.
21. Sobel, D. (2004) *Place-Based Education: Connecting Classrooms and Communities*. Great Barrington, MA: Orion Society, 2004.
22. Evergreen (2001). *Nature Nurtures: Investigating the Potential of School Grounds*. Evergreen.
23. <http://vsb.bc.ca/district-policy/io-garden-policy>
24. [http://www.tbcdsb.on.ca/files/u16/502\\_\\_SCHOOL\\_FOOD\\_GARDENS.pdf](http://www.tbcdsb.on.ca/files/u16/502__SCHOOL_FOOD_GARDENS.pdf)
25. Rojas, A., Valley, W., Mansfield, B., Orrego, E., Chapman, G. E., & Harlap, Y. (2011). Toward food system sustainability through school food system change: Think & eatgreen at school and the making of a community-university research alliance. *Sustainability*, 3(5), 763–788.





Tomato Plants   
 Green Peppers  
Collard Greens, Beans   
 Squash  
Potatoes  Sweet Potatoes  
Lettuce  Cabbage

# Appendix A: School Garden Profiles

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# Appendix A: School Garden Profiles

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Crestview Public School in Kitchener has a community garden on its grounds. The garden was started in 2014 by a parent and school council member, and is maintained by Crestview parents and community members.

The garden has six, ten foot by ten foot raised beds built by founders Jane Barkley and Darrick Hahn using donated materials. Wood for the beds was found for free on Kijiji, soil was obtained free from the Waterloo region's compost give-away and both the mulch border around the beds and the larger tools needed to till the earth and create the garden were provided free of charge by Steckle Heritage Farm in Kitchener. Seedlings for starting the garden were donated by Eastwood students, and astronaut Chris Hadfield also donated tomato seeds that have travelled to the International Space Station.

Crestview students planted seeds in the spring and participated in the fall 2014 harvest. Staff is now exploring integrating the garden into classes and extracurricular activities as the garden enters its second year.



Photo used with permission

*The most exciting part is when we harvest ... like in October we spent like two days and we still couldn't get all of it. We had the pumpkins... and Mr. Kasper entered it into a contest and we won... it was the most aesthetically pleasing.... It was perfect." – ECI Student Gardener*

Eastwood Collegiate Institute (ECI) serves approximately 1400 students in Kitchener. ECI has two gardens on site – a vegetable garden and an herb garden, which were started through an environmental studies class in 2013. Students and staff collaborated on a plan for a simple garden, and obtained funding from the Region of Waterloo to start the program. They have since expanded their gardens and grown their gardening club, and continue to experiment with various types of plantings.

Students and staff in the Impact club (<http://eastwoodimpact.weebly.com>) plan and maintain the garden during the school year. Many classes from across the school departments use the gardens as part of their curriculum, from environmental studies, hospitality, and food skills, to arts and life drawing activities.





## Elmira District Secondary

Elmira District Secondary School (EDSS) serves approximately 1400 students in grades nine through 12 from Elmira and surrounding areas. The EDSS food garden was developed as part of a grounds revitalization and greening process in 2013. The site includes a vegetable garden and a small greenhouse, along with a chicken coop. The site also includes an outdoor classroom and quiet study spaces, giving students places to spend time outdoors and reap the benefits of stress relief and improved learning. Teachers and students appreciate both the green space on campus, and the chickens have proven to be resources for both education and social development, engaging some students who have struggled in the classroom in the past.

Students were involved in the planning and construction of the project through the school's Workplace Science course. Thanks to a partnership with local landscaping group Earthscape, students were able to gain hands-on experience in dimensioning, scaling, site analysis, and design, to contribute to their own courtyard design, and to participate in the construction process.



## Kitchener Collegiate Institute

"The Market days are huge. Almost everyone in the whole school comes out." - KCI Student

Kitchener Collegiate Institute (KCI) serves approximately 1200 students in downtown Kitchener. KCI has an extensive school garden program that supports its Technological Education Program, including courses such as Green Industries, and Horticulture.

The program has a separate outbuilding on campus, attached to a greenhouse, which also houses a classroom and program equipment. The campus also has an orchard and beehives, and raises goats, chickens, turkeys, and quails on site. Produce grown by students is used in hospitality classes and sold at a school farmers market to students, staff, and community members.

## Sir John A Macdonald Secondary School

Sir John A Macdonald (SJAM) is a secondary school serving approximately 1500 students in Waterloo. The school's food and pollinator garden was planned and planted by over 30 students and two staff members as a course project, and has since been expanded. The garden is used by the school's Housing and Living Spaces course, and maintained by students and staff through course and volunteer work.

## Other Ontario School Gardens

This review also found other schools in Ontario with established gardening programs that can provide examples for Waterloo Region schools. These programs are summarized in table 1 below.

| Region          | School                                 | Description   | Link  |
|-----------------|--|---|---|
| Fort Albany     | Fort Albany First Nation School        | Located in a northern community with significant food security challenges<br>Food hub for the community<br>Greenhouse donated by the University of Waterloo   | Fort Albany First Nation School                         |
| Lakefield       | Buckhorn PS                            | Started in 2009<br>Grows food for school breakfast and lunch programs<br>Each class maintains its own plot<br>Support from Earth Day Canada, Parent Council, City of Peterborough<br>City-County community garden policy established institutional support and leadership | Buckhorn School Garden                                  |
| Niagara Falls   | Stamford Collegiate                    | Large garden started in 2003<br>Horticulture program<br>Open door policy for other classes<br>Ecofreaks garden club<br>Strong student & community engagement<br>Challenges with infrastructure policy   | Stamford Collegiate Horticulture program                |
| Chatham-Kent    | VON student nutrition partnerships     | Student nutrition partnership<br>Chatham Kent & VON Farm School Pilot   | CK Farm to School Pilot Program                         |
| Waterloo Region | École L'Harmonie                       | 2012 Partnership between the Vermont Park Community Association and Ecole l'Harmonie.<br>Affiliated with St. Agnes Separate School; Transition KW, KW Urban Harvester, and the African Community Wellness Initiative<br>9-plot Organic garden                             | Vermont Park Neighbourhood Garden                       |
| Wellington      | Centre Wellington District High School | A series of integrated courses in both, cooking and growing food at Centre Wellington District High School.<br>Connected to farm and industrial kitchen   | <a href="http://foodschoo.ca/">http://foodschoo.ca/</a> |
| Stratford       | Stratford Northwestern                 | Screaming Avocado café run by culinary arts students<br>Supplied by Seeds of Change 3000 square ft. organic garden, greenhouse, and locally sourced produce   | The Screaming Avocado                                   |

|               |                             |  |  |
|---------------|-----------------------------|--|--|
| Toronto       | Winchester PS               | Collaboration with green thumbs growing green kids<br>Established in 2001 - Model site for other schools<br>Large garden yields a lot of produce for school lunch program<br>Built into curriculum and extracurricular garden club<br>Hires and trains youth to run programs   | Winchester PS  |
|               | Rose Avenue PS              | Collaboration with green thumbs growing green kids<br>K-6 school with 700 students from kindergarten through Grade 6. Majority of students are newcomers to Canada and have English as a second language<br>EcoSchool participant.<br>Garden development began in 2007, with a design for a children's garden, and expanded in 2010 with 3 earthblock beds built by students | Rose Avenue PS                                       |
|               | Sprucecourt PS              | Collaboration with GTGK and Lead2Peace, Meal Exchange<br>Integrated with school curriculum<br>Summer drop-in, garden training, and workshops<br>Funding from City of Toronto Community Service Partnerships  | Sprucecourt Peace Garden                             |
|               | Gabrielle Roy               | ViaMonde immersion school<br>Worm-composting program<br>Garden started in 2009 and expanded to 4 beds in 2010  | Ecole Gabrielle Roy                                  |
|               | Jackman Avenue PS           | Started in 2003<br>4 gardens maintained by parents with strong neighbourhood support<br>Integrated in school curriculum  | Jackman Ave. PS                                      |
|               | Brock PS                    | Partnership with Foodshare   | Brock PS garden                                      |
| Windsor-Essex | Community Garden Collective | Cardinal Carter Catholic Secondary School<br>Ready-Set-Go/ Prince Edward Community Garden<br>New Beginnings Youth Garden   | <a href="http://www.wegarden.ca">www.wegarden.ca</a> |