NOTICE OF MEETING

Committee I:
Mike Lombardi
Allan Wong
Ken Clement
Cherie Payne
Rob Wynen

Scott Robinson, Associate Superintendent

Dear Sir or Madam:

Notice of Meeting

A meeting of the Management Co-ordinating (Committee I) will be held in Room # 120 of the Education Centre, 1580 West Broadway, Vancouver, British Columbia, on

Wednesday, June 4, 2014 at 5:00 pm

Yours truly,

Rick Krowchuk
Secretary-Treasurer

Trustees: Patti Bacchus
Fraser Ballantyne
Ken Denike
Sophia Woo

Student Trustee: Nick Milum

Senior Staff: Steve Cardwell
Maureen Ciarniello
Catherine Jamieson
Denise Johnson
Brian Kuhn
Lisa Landry
Jim Meschino
David Nelson
Mark Pearmain
Rob Schindel
Janet Stewart
Ian Wind

Reps: Debbie Pawluk, VSTA
Gerry Kent, VESTA
Leann Buteau, VASSA
Bruce Murton, VEPVPA
Barb Onstad, PASA
Monica Moberg, DPAC
Tim Chester, IUOE
Warren Williams, CUPE 15
John Pesa, Trades
Brent Boyd, CUPE 407
Adi Pick, VDSC

Alt: Rory Brown, VSTA
Heather Allison, VESTA
Bev Seed, VASSA
Rosemary Love, VEPVPA
Doug McClary, PASA
Mabel Sun, DPAC
Tim DeVivo, IUOE
Lois Holmlund, CUPE 15
Alan Exner, Trades

Others: Secretary-Treasurer’s Office
District Parents
Kurt Heinrich
Chris Allen
Lynda Bonvillain

Ed. Centre Engineers
Bill Ostrom, Operations
Rentals
Cafeteria
COMMITTEE MEETING

COMMITTEE I – MANAGEMENT CO-ORDINATING
Wednesday, June 4, 2014 at 5:00 pm
Room 120, VSB Education Centre

AGENDA

Delegations

Items Requiring Board Actions / Motions

Reports for Trustees’ Information
1. Sustainability Audit R. Macdonald
2. Cross Boundary Policy Review S. Robinson
3. Online Course Catalogue (verbal report) C. Atkinson
4. Norma Rose Point Upgrade S. Robinson
5. Home Learners Program move (verbal report) S. Robinson

New Business / Enquiries

Date and Time of Next Meeting
September, 2014 (TBD)
Memorandum
Vancouver School Board

Date: June 4, 2014
To: Committee I
From: Ron Macdonald, Manager of Energy and Sustainability
Re: Environmental Sustainability Audit

BACKGROUND
In September 2010, the Board adopted the “VSB Sustainability Framework”. This document defined a vision for the VSB to be the “greenest, most sustainable school district in North America”. The framework defined guiding principles for pursuing that vision and identified six key result areas (KRAs) for defining metrics, goals, and targets for action.

At the November 19, 2012 meeting of the board, the following resolution was passed:

“That the board approve the plan to fill the vacant Manager of Environmental Sustainability position; and conduct a comprehensive environmental sustainability audit”.

A terms of reference for the audit process was developed by staff and presented to Committee II on June 12, 2013.

A consultant (Sustainability Solutions Group) was selected to conduct the audit in January 2014 through a competitive RFP and proposal process.

AUDIT PROCESS
The audit process has included:

- A review of sustainability related activities underway at the schools and district-wide;
- A review of VSB policies and activities;
- Research of different reporting systems and accreditation systems that could be used to evaluate progress of the District;
- Interviews with VSB management and selected trustees;
- Focus groups with students at several schools;
- An on-line survey of the VSB community;
- Interviews and research to understand how the VSB compares to other school districts (and other relevant organizations); and
- Recommendations to help direct the VSB towards attaining the vision.
KEY FINDINGS

The findings here have been summarized in a Summary Report (attachment #1) and an accompanying Appendix Document (attachment #2). Key findings include:

- There is no standardized system for evaluation of sustainability for school districts. There are reporting and rating systems which can be drawn upon to develop reporting metrics for school boards.

- There is no school district that could be viewed as the acknowledged leader in sustainability. Compared to other school boards in the lower mainland and to a small survey group elsewhere, the VSB was assessed to be a 'leading' organization in many of its policy initiatives, 'middle of the pack' in most of its implementation activities, and lagging in a few areas - typically against one US school district.

- The VSB is well positioned through its political and management commitment, policy foundation, and interest of the school community to become a leader in sustainability.

AUDIT RECOMMENDATIONS

The audit produced 11 key recommendations. These are summarized in the table below, and described in the Summary Report with supporting information in the appendices document.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Item</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define</td>
<td>Definition of Greenest School District</td>
<td>1) Adopt a definition of greenest, most sustainable school district.</td>
</tr>
<tr>
<td></td>
<td>Sustainability Leadership</td>
<td>2) Develop a sustainability framework for school boards (with others).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) Advance eco-literacy inside and outside of the classroom.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4) Make sustainability a key priority of VBE.</td>
</tr>
<tr>
<td></td>
<td>VBE Sustainability Framework Amendments</td>
<td>5) Refresh the Sustainability Framework.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6) Compile a set of metrics to track progress.</td>
</tr>
<tr>
<td>Plan</td>
<td>Systematic Approach to Sustainability</td>
<td>7) Adopt a systematic sustainability approach to enable focus, prioritization and accountability.</td>
</tr>
<tr>
<td></td>
<td>Prioritization</td>
<td>8) Prioritize goals and targets to focus efforts.</td>
</tr>
<tr>
<td>Implement</td>
<td>Partnerships</td>
<td>9) Focus on securing strategic partnerships, leveraging staff and volunteer resources.</td>
</tr>
<tr>
<td></td>
<td>Outreach and Communication</td>
<td>10) Invest in communications and engagement for district-wide sustainability initiatives.</td>
</tr>
<tr>
<td></td>
<td>Project and Programming Funding</td>
<td>11) Secure reliable funding mechanisms for sustainability programming and projects.</td>
</tr>
</tbody>
</table>

Prepared by: Ron Macdonald
File: C:\Users\mcaparas\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\5HWXLWCX\Item X - June4-2014 Comml_Sustainability Audit_V2.docx
IMPLEMENTATION

To implement the findings of the audit review, it is proposed that the sustainability group - working with the VSB community - develop a multi-year sustainability action plan. Components of such a plan would likely include:

- Identification of short term and long term actions in each of the key result areas
- Refined metrics for tracking at present and into the future
- Targets and timelines for key metrics
- Communication strategies
- Resourcing requirements and funding opportunities

The plan would be developed by staff but include consultation with the stakeholders groups as well as the Sustainability Advisory Committee.

At present, it is proposed that Committee I members be given an opportunity to review the report and recommendations and discuss the findings with their stakeholder community. Accordingly, this report is provided for information at this time. This item will be placed on the September Committee I agenda for discussion and consideration of appropriate recommendations to the Board.

RECOMMENDATION

This report is provided for information at this time.

ATTACHMENTS:

1. Environmental Sustainability Audit: Summary Report
2. Environmental Sustainability Audit: Appendices
Cover photo by Flickr user wyn lok (2006).
Were we to confront our creaturehood squarely, how would we propose to educate?

The answer, I think is implied in the root of the word education, educe, which means "to draw out." What needs to be drawn out is our affinity for life. That affinity needs opportunities to grow and flourish, it needs to be validated, it needs to be instructed and disciplined, and it needs to be harnessed to the goal of building humane and sustainable societies. Education that builds on our affinity for life would lead to a kind of awakening of possibilities and potentials that lie dormant and unused in the industrial-utilitarian mind.

Therefore the task of education, as Dave Forman stated, is to help us 'open our souls to love this glorious, luxuriant, animated, planet.' The good news is that our own nature will help us in the process if we let it.

— David Orr
## Contents

1. Introduction 1
   1.1 Purpose of Project 1
   1.2 Role of a Third Party Environmental Sustainability Auditor 1
   1.3 Audit Focus 1
   1.4 Audit Methodology 3

2. Findings 5
   2.1 Policy Review 5
   2.2 VBE Activities 7
   2.3 Comparison with Peers 7

3. Recommendations 10
   3.1 Definition of Greenest School District 11
   3.2 The Importance of Sustainability Leadership 11
   3.3 VBE Sustainability Framework Amendments 12
   3.4 A Systematic Approach to Sustainability 14
   3.5 Action Prioritization 15
   3.6 Partnerships 15
   3.7 Outreach and Communication 16
   3.8 Project and Programming Funding 16

4. Conclusions 17

### Appendix A: Environmental Audit Inventory Synopsis

### Appendix B: Jurisdictional Review (Promising Practices)

### Appendix C: Peer Comparison

### Appendix D: Revised Sustainability Framework

### Appendix E: Proposed Indicator Framework

### Appendix F: Prioritization Tool Example

### Appendix G: Sustainability Aspirational Objectives
Until you dig a hole, you plant a tree, you water it and make it survive, you haven't done a thing. You are just talking.

Wangari Maathai
Nobel Peace Prize speech
1. Introduction

1.1 Purpose of Project

The VBE Sustainability Framework states that "The Vancouver Board of Education will be the greenest, most sustainable school district in North America." This environmental audit reviews the activities currently underway at VBE to provide a baseline from which to advance this vision. The environmental audit has five goals:

1. To inventory the Board's sustainability activities;
2. To understand how other leading school districts in BC and North America are pursuing sustainability;
3. To compare the Board's activities (including the Sustainability Framework & the Strategic Plan) against available standards, and where possible, other suitable reporting structures;
4. To identify successes and gaps, and areas where the Board could take more action; and
5. To define activities that are suitable for establishing indicators and targets.

1.2 Role of a Third Party Environmental Sustainability Auditor

Environmental and financial audits are similar in that an independent organization with subject matter expertise is invited to take a close look at policies, programs and practices in an organization in order to provide an outside perspective on the organization's work. Otherwise, environmental and financial audits differ in focus and scope (Table 1). This report is an exploratory document to enable VBE to identify its approach to sustainability reporting and does not include all of the detailed steps and information provided in a comprehensive environmental audit. The AccountAbility standards (AA1000) were used to guide the approach to the environmental audit.

Table 1: Differences between financial reporting and sustainability reporting.

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Emphasis in financial reporting</th>
<th>Emphasis in sustainability reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time-scale</td>
<td>The reported year</td>
<td>Future orientation</td>
</tr>
<tr>
<td>Focus</td>
<td>Issues that organization directly controls</td>
<td>Wider sustainability impacts</td>
</tr>
<tr>
<td>Economic view</td>
<td>Material</td>
<td>Intangible</td>
</tr>
<tr>
<td>Data</td>
<td>Financial</td>
<td>Non-financial</td>
</tr>
<tr>
<td>Materiality</td>
<td>Financial significance</td>
<td>Any information that is significant to readers</td>
</tr>
<tr>
<td>Users</td>
<td>Shareholders and investors</td>
<td>Stakeholders</td>
</tr>
</tbody>
</table>

1.3 Audit Focus

The Sustainability Framework's commitment is to be the greenest, most sustainable school district in North America. In terms of scope, 'green' and 'most sustainable' have different meanings as green tends to refer solely to environmental issues whereas sustainable incorporates social, ecological and economic issues in an integrated approach. This analysis assumes an emphasis on green and that sustainable refers to environmentally sustainable. In other words, the project is focussed primarily on environmental impact and the places where environment overlaps with economic and social impacts. As a first step in defining the scope of this analysis we identified categories describing the types of activities in which VBE is engaged and different aspects of the environment.

---

which are impacted by these activities. We then identified which of those activities were likely to impact different areas of the environment (Table 2). This analysis provided guidance for the subsequent investigations and a framework for surveys and interviews.

<table>
<thead>
<tr>
<th></th>
<th>Student Education</th>
<th>Staff Professional Development</th>
<th>Transportation</th>
<th>Grounds</th>
<th>Waste</th>
<th>Education</th>
<th>Procurement</th>
<th>Buildings &amp; Maintenance</th>
<th>Food</th>
<th>Operations</th>
<th>Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forests</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biodiversity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.4 Audit Methodology

Qualitative and quantitative data were collected and analysed for the audit. A summary of methods and outcomes is presented in Table 3.

Table 3: Summary of audit methodology and outcomes.

<table>
<thead>
<tr>
<th>Method</th>
<th>Purpose</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Background review of sustainability-related documents, policies, reports and guidelines.</td>
<td>To develop the VBE environmental policy baseline. To review relevant regional, provincial, federal and international policies.</td>
<td>VBE has the beginning of a systematic approach in its sustainability framework. VBE has several proposed policies that are in process and/or have not yet been approved.</td>
</tr>
<tr>
<td>B. Review of sustainability frameworks and tracking systems.</td>
<td>To identify appropriate frameworks for VBE’s context.</td>
<td>There is no accepted sustainability framework for school boards. The two most appropriate indicator systems for VBE are AASHE STARS and GRI.</td>
</tr>
<tr>
<td>C. Stakeholder engagement</td>
<td>To identify material issues.</td>
<td>Interviews: In depth qualitative data was collected on issues of importance, understanding of sustainability, organizational culture, and vision. Student engagement: Students identified a range of existing actions, challenges and opportunities. Surveys: Identified priority issues, revealed stakeholder understanding of sustainability at the VBE. World Café: Student and teacher sustainability champions participated in a dialogue about their vision for a sustainable VBE and their priority issues.</td>
</tr>
<tr>
<td>D. Quantitative analysis of actions and initiatives at individual schools.</td>
<td>To identify key themes, epicenters of energy and effort.</td>
<td>There is an extensive grassroots sustainability ‘movement’ at the level of individual schools (secondary and primary) in VBE. The most frequently discussed themes are food systems, followed by transportation and waste management.</td>
</tr>
<tr>
<td>E. Review of promising practices by VBE’s ‘peers’ in Canada and internationally.</td>
<td>To identify state of practice amongst other school boards.</td>
<td>Other studied school boards, recognised for their sustainability leadership, are in similar positions to VBE, with a range of activities and a limited systematic approach. Different districts excel in different areas, and leadership on specific themes can be found by looking to a variety of districts.</td>
</tr>
<tr>
<td>F. Comparison of key indicators and practices against ‘peers’ and leaders in other sectors.</td>
<td>To compare VBE against other school boards and organizations.</td>
<td>There are no standard reporting protocols for school boards, meaning that even the simplest indicators can be difficult to populate. No school boards (or equivalent organizations) that employ a systematic approach to sustainability were found in the study; there are many individual and thematic initiatives underway. Organizations in other sectors have more aggressive targets, more comprehensive indicators, and a more integrated approach.</td>
</tr>
</tbody>
</table>
The VBE has stakeholders that are consulted or engaged on all key policy discussions and decisions. The stakeholders consulted for the audit include:

- Students
- Parent Advisory Councils
- Teachers
- Principals and Vice-Principals
- Trustees
- Staff

Methods in C (Table 3) focused on ensuring feedback was collected from the educational stakeholder groups in ways that would work most effectively for them.

- Senior management, management, Trustees, and teachers with a particular interest/role in environmental sustainability were interviewed.
- Teachers and students were invited to a world cafe discussion, and were the focus of the on-line survey outreach (completed by over 100 respondents).
- Students were engaged in focused discussions at several schools that have active environmental programs and partnerships in place.
- Several of the stakeholders are represented on the Sustainability Advisory Committee, and this group gathered to provide feedback on their priority issues for consideration during the audit. Detailed results of the stakeholder feedback can be found in the Environmental Audit Synopsis Report in Appendix A.

While we can draw upon experiences of the past to solve the problems of today and tomorrow, the reality is that citizens of the world will have the task of learning their way towards sustainability. Education is therefore central to learning and to a more sustainable future.

— UNESCO
2. Findings

2.1 Policy Review

The policy environment at VBE has a good foundation in the VBE Sustainability Framework. There is room to clarify the policies as an integrated package to ensure that the Sustainability Framework is fully incorporated in the strategic plan and other high level VBE policies or strategies.

The two high level policies that address sustainability are the 2011-2016 Strategic Plan and the Sustainability Framework. The Strategic Plan provides specific guidance for the Sustainability Team and advances sustainability in the new school renewal plan. The Sustainability Framework provides an integrated approach to six key thematic areas and these areas are supported by a number of approved and draft policies.

Provincial policy includes the Sustainability Education Framework from the Ministry of Education, which may be affected by a K-12 curriculum review, a requirement for carbon neutrality under the Carbon Neutral Government Regulation and a LEED Gold or equivalent requirement for provincially-funded buildings. As the primary funder of VBE, the provincial government has significant indirect influence on funding allocations.

Figure 1 is a schematic of the policies directly influencing VBE’s sustainability efforts, using the framework key reporting areas in the 2010 Sustainability Framework.

Policy Review Findings

- The Sustainability Framework is a comprehensive and integrated policy encompassing all of the relevant activities at VBE, however it could be reorganized for clarity and appropriate level of focus.
- The policy analysis indicates a concentration of effort at the policy level on the KRAs of Education & Organizational Culture, Energy & Climate Change and Transportation.
- Additional sustainability policies are developed on an ad-hoc basis.
Figure 1: Policy environment at VBE in relation to the Sustainability Framework.
2.2 VBE Activities

A comprehensive inventory of sustainability projects by school was created by VBE staff, including projects in the categories of saving electricity, heating, envelope and natural gas, renewable energy, food systems, transportation, student-initiated programs and projects, waste management, and NGOs/student engagement. An analysis of these activities indicated that transportation is the most prominent theme (as represented by the number of schools doing transportation activities), with most activities in this theme occurring in elementary schools. The second most common activity is food systems, while renewable energy and student-initiated efforts have been implemented to lesser extents. Secondary schools are undertaking the most initiatives per school, with 5-15 initiatives per school, while elementary schools had 5 initiatives or less.

In a pamphlet published in 1900, a California educator argued for a garden in every school. School gardens, he wrote, will teach students that “actions have consequences that private citizens should take care of public property, that labor has dignity, that nature is beautiful.” They also teach economy, honesty, application, concentration, and justice. They teach what it means to be civilized.

A. Waters

A delicious revolution. Centre for Ecoliteracy.

VBE Activity Findings
- There are many related activities underway at all VBE schools.
- These activities demonstrate that environmental sustainability is a priority at many schools.
- The predominant themes of the activities are food systems and transportation.

2.3 Comparison with Peers

A review of several North American school districts and two jurisdictions outside of North America was conducted to provide some context as to how the VBE relates to its peers. Four other organizations that have relationships with VBE were also reviewed. The review was neither comprehensive nor exhaustive relative to the number of school districts and organizations in North America that are expected to have some strategic focus on environmental sustainability initiatives. Jurisdictions were selected to be part of the review because they were identified as jurisdictions of interest by VBE staff, and/or they were recognized as having promising practices in certain thematic areas. Table 4 indicates the organizations studied.

<table>
<thead>
<tr>
<th>Table 4: Jurisdictions Studied</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other BC School Districts</strong></td>
</tr>
<tr>
<td>• Delta School District, BC</td>
</tr>
<tr>
<td>• Abbotsford School District, BC</td>
</tr>
<tr>
<td>• School District No. 38 (Richmond), BC</td>
</tr>
<tr>
<td>• Surrey School District No. 36, BC</td>
</tr>
</tbody>
</table>

Sustainability Solutions Group | May 2014
Summary Report: Page 7
Interviews and background research were performed for each organization. Study details are found in Appendix B. A qualitative comparison of VBE against the other school districts (Appendix C) indicates that in most categories VBE is comparable with its peers, all of whom have similar types of initiatives, with varying degrees of implementation. Table 5 summarises this comparison. If VBE is in a leadership position the label “leading” is applied and highlighted; if other school boards have similar types of initiatives, the label “middle” is applied; and if other school boards have more advanced efforts, targets or policies, the label “lagging” is applied to VBE. The non-school board institutions are not included in Table 5 but are included in Appendix C for comparison.

<table>
<thead>
<tr>
<th>Area</th>
<th>Current Status</th>
<th>Comments or rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustainability policy</td>
<td>Leading</td>
<td>VBE has a Sustainability Framework and Strategic Plan that support sustainability initiatives. Sustainability Framework key result areas are comprehensive and inclusive, and consider education and operations initiatives. Food and supply management initiatives are advanced relative to peers. A Sustainability Advisory Committee is in place, with VBE stakeholder members. This framework is unique amongst the school boards considered.</td>
</tr>
<tr>
<td>Supporting policies and plans</td>
<td>Middle</td>
<td>Other school boards have thematic, supporting policies on purchasing, climate action, energy management, waste management and others, as extensive, or more extensive than VBE.</td>
</tr>
<tr>
<td>Senior staff position</td>
<td>Middle</td>
<td>Like several other school boards, VBE has senior staff focused on sustainability for operations, and teaching and student support. Larger institutions may have an executive level position defined for sustainability (e.g. UBC has an Associate Provost of Sustainability).</td>
</tr>
<tr>
<td>Staff support</td>
<td>Middle</td>
<td></td>
</tr>
<tr>
<td>Reporting frameworks</td>
<td>Leading</td>
<td>VBE has retained a third-party auditor to assess and report on sustainability performance, a unique effort amongst the school boards.</td>
</tr>
<tr>
<td>Annual reporting</td>
<td>Middle</td>
<td>Various school boards report on energy and climate but no school boards report annually on environmental sustainability in a comprehensive manner.</td>
</tr>
<tr>
<td>Partnerships</td>
<td>Middle</td>
<td>Similar to other school boards, VBE has leveraged partnerships and resources with external organizations for its sustainability efforts.</td>
</tr>
<tr>
<td><strong>Goals/targets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>Leading</td>
<td>VBE has an ambitious vision to be the greenest, most sustainable school district in North America, a unique vision.</td>
</tr>
<tr>
<td>Waste management</td>
<td>Lagging</td>
<td>SFUSD and Richmond have aggressive waste management targets.</td>
</tr>
<tr>
<td>Energy &amp; climate</td>
<td>Middle</td>
<td>VBE has targets to reduce energy and GHG emissions, like other school boards.</td>
</tr>
<tr>
<td>Transportation</td>
<td>Lagging</td>
<td>San Francisco Unified School District has a target to be 75% car free by 2020.</td>
</tr>
<tr>
<td>Procurement</td>
<td>Lagging</td>
<td>San Francisco will transition to 100% approved green cleaning products.</td>
</tr>
<tr>
<td>School greening</td>
<td>Lagging</td>
<td>San Francisco has a target of a green schoolyard garden in every school.</td>
</tr>
<tr>
<td>Education &amp; organizational culture</td>
<td>Middle</td>
<td>San Francisco has a specific focus on eco-literacy, but there are no clear targets amongst the school boards.</td>
</tr>
<tr>
<td>Technical design</td>
<td>Middle</td>
<td>VBE LEED standards for new buildings, like other school boards.</td>
</tr>
<tr>
<td><strong>Initiatives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste management</td>
<td>Middle</td>
<td>Most school boards have a range of efforts related to waste management.</td>
</tr>
<tr>
<td>Energy &amp; climate</td>
<td>Middle</td>
<td>VBE has a history of energy reduction and management initiatives, with overall electricity and natural gas reductions, and pilot projects for different systems and technologies. This effort is similar to other school boards.</td>
</tr>
<tr>
<td>Transportation</td>
<td>Middle</td>
<td>Four school boards have extensive transportation initiatives.</td>
</tr>
<tr>
<td>Procurement</td>
<td>Middle</td>
<td>Procurement efforts focus on cleaning and paper, no clear leaders.</td>
</tr>
<tr>
<td>School greening</td>
<td>Middle</td>
<td>A high percentage of schools in both the Toronto School Board and VBE have school gardens or school grounds greening programs.</td>
</tr>
<tr>
<td>Education &amp; organizational culture</td>
<td>Middle</td>
<td>There is a great deal of support for student-led initiatives at all levels in the organization. There are similar efforts at all of the other school boards.</td>
</tr>
<tr>
<td>Technical design</td>
<td>Middle</td>
<td>VBE has on-site operations staff with understanding of building systems. VBE has developed and implemented design standards. Other school boards are using LEED Gold and Portland participates in the Better Buildings Challenge.</td>
</tr>
</tbody>
</table>
The comparison was conducted using elements of a systematic approach to environmental sustainability including a high level policy, supporting policies, supporting staff, reporting framework, thematic goals or targets and initiatives. This comparison approach is qualitative, differing from a traditional benchmarking approach which is predominantly quantitative. All information was verified by each school board.

Comparison with Peers Findings
- No single school district included in the study is clearly leading the way on all environmental sustainability issues.
- There are many initiatives that could be transferred from one jurisdiction to another.
- There would be considerable benefit from an inter-school board dialogue focused on sustainability.
- Taken together, these jurisdictions offer a comprehensive set of measures that can provide guidance on what the greenest school district should be achieving.

We must also turn to ourselves as individuals and as education professionals to make change and develop a new ethic—a responsible attitude towards caring for the Earth.

Canadians of all generations and from all sectors of society should be given opportunities to engage in environmental learning within and beyond the classroom walls where critical questions can be asked and sustained and meaningful dialogue can take place.

British Columbia Ministry of Education, 2006
3. Recommendations

Opportunities to advance VBE’s leadership were identified to include:

- Sustainability should be prioritized amongst other VBE initiatives.
- Clear, focused, achievable yet ambitious targets.
- A reporting and accountability system, for reporting to senior management, Trustees, and stakeholders, on performance against targets, key indicators, and progress on priority projects.
- More investment in curriculum, education, learning and teaching initiatives focused on sustainability is required. Investment could be in the form of increased staffing, increased professional development opportunities, innovative curricular offerings, expanded partnerships, and others.
- Climate action and climate change adaptation plans.
- Encouragement and engagement of each school to participate more fully in sustainability initiatives is needed. This could include: incorporation of sustainability projects in school plans; an evaluation, reward, and incentive system to encourage participation, sustainability-specific curricula, and others.
- Communications between the sustainability team and the rest of the district, particularly schools. The communications should focus on: sustainability goals, policies, and priorities; support and resources available; engagement about roll-out of district-wide initiatives; improved understanding of what schools and other departments need to more fully implement sustainability initiatives; and others.
- A focus on establishing and growing strategic partnerships to support implementation of VBE priorities, particularly with the City of Vancouver, the Vancouver Board of Parks and Recreation, post-secondary education sector, non-profits, and funders.
- Key planning documents related to each key performance area, including food, waste and energy (all in progress) need to be finalized and gaps with plans in other KPAs filled. This will clarify priority actions, develop a comprehensive plan in response to target achievement, clarify who is accountable for achievement of each action, identify priority partnership opportunities, and others.

Eleven high-level recommendations were created to address identified issues and opportunities.
3.1 Definition of Greenest School District

The ambition to be the greenest school district has implications for every aspect of VBE and it is important to articulate clearly the vision and ambition in a definition.

**Recommendation 1: Adopt a definition of greenest, most sustainable school district.**

The following components of VBE’s operations and programming should make up the definition of greenest school district:

- Integrating ecoliteracy into curricula and school programming.
- Empowering administration, staff and students in sustainable behaviours and decision-making.
- Requiring sustainable purchasing and investment.
- Refining operations and school grounds maintenance and programming to be efficient and sustainable.
- Participating in an inter-jurisdictional sustainability achievement framework.
- Implementing a sustainability effort tracking and evaluation system.
- Becoming the school district that others look to for sustainability leadership.

3.2 The Importance of Sustainability Leadership

Declarations on sustainability, the environment and climate change exist for higher education, corporations, municipalities and health care, but there is no analogous program, declaration or network for school boards. This leadership will facilitate new partnerships, transfer of best practices and innovation and advance efforts at promoting environmental sustainability across Canada.

**Recommendation 2: Work with leadership from other school districts across North America to develop a sustainability framework for school boards.**

While there are declarations and frameworks in other sectors that have gained significant traction, no analogous framework was identified for K-12 education. VBE could be the leader in this effort. The framework should include vision and goal statements, as well as targets and reporting recommendations.

There are many demands on VBE and it can be challenging for staff and teachers to understand their role in the implementation of the Sustainability Framework. In order to ensure VBE is the greenest school board, a clear and consistent signal from the organization’s senior levels is required. VBE staff would benefit from having sustainability clearly defined and prioritized in their work.

**Recommendation 3: Work with teachers and the Ministry of Education to advance ecoliteracy inside and outside of the classroom.**
All education is environmental education in that our relationship to nature is a cross-cutting theme. Ecoliteracy, short for ecological literacy, is a way of thinking about the world in terms of its interdependent natural and humans systems.

**Recommendation 4:** Make sustainability a key priority of VBE programming and operations and clearly articulate how sustainability actions are prioritised amongst other high priority actions, and appropriately staff, resource, and support sustainability initiatives.

### 3.3 VBE Sustainability Framework Amendments

The VBE Sustainability Framework was confirmed as Board policy in September 2010. It provides a contextual framework for what is and is not included in VBE’s sustainability work, and it established the Board’s vision of being the greenest, most sustainable school district in North America.

The preamble and principles provide a very strong foundation for sustainability work at the VBE. Strong links between environmental and social justice issues are made, as well as clear connections between the primary responsibility of VBE as educator and other roles and activities required to operationalise this responsibility.

The six key result areas (KRAs) provide a mix of process and issue-based areas of work. It is recommended that the KRAs and their goals be amended in order to: demonstrate the overall importance of education and culture to the VBE’s sustainability work; demonstrate leadership that responds to best practices from other jurisdictions; and remedy some gaps and overlaps in the issues considered. Appendix D outlines the recommended changes to the Sustainability Framework and KRAs. Goal language has been refined in order to strengthen the commitment and intent, and to be more inclusive of all of the issues considered within each KRA.

**Recommendation 5:** Refresh the Sustainability Framework to include revised key result areas and goals.

As the overarching policy document, the sustainability framework can provide the structure for a systematic organizational approach.

It is further recommended that the revised Sustainability Framework include performance metrics. Metrics are important to give qualitative and quantitative feedback on areas of focus for implementation of the goals described in each KRA. They can also enable comparison to peers when selected indicators are common, and data is collected consistently across different jurisdictions.

Suggested organizational metrics, as well as metrics for each KRA, are provided in the draft revised Sustainability Framework, Appendix D, with further descriptive detail in Appendix E. Between 4 and 11 metrics are proposed for each of the KRAs. Some are already being tracked by VBE through existing initiatives, some may be easily created through existing data, and some may require new information collection. The suggested list of metrics and indicators would be developed and refined as the information required for each is assessed and evaluated.
The objective of this list of metrics is to demonstrate the nature and breadth of sustainable activities and the variety of information that could be used to track progress towards the vision of being the 'greenest, most sustainable school district in North America'. As an action plan is developed, some of these metrics may be non-viable or require revision. While this may be expected, it still remains that some form of robust monitoring framework will be needed to make progress and to achieve the VSE's vision.

The metrics are informed by the following resources:

- Relevant sustainability frameworks, drawing most strongly from the Global Reporting Initiative (GRI), the Greenest City Action Plan (GCAP), and the Association for the Advancement of Sustainability in Higher Education's (AASHE) Sustainability Tracking, Assessment, and Rating System (STARS);
- Results from the VBE background review, policy research, interviews, and survey indicating topics of high importance, relevance and interest to stakeholders; and
- Results from the best practices review providing measures that should be considered in order for VBE to articulate its leadership position on key metrics relative to peers.

Metrics were selected based on these characteristics:

- Accuracy, availability and accessibility of data of known quality;
- Ease of understanding for stakeholders;
- Representative of what is intended for measurement;
- Relevant to stakeholders, decision-makers, and local and global sustainability issues;
- Responsive to policy/practice changes implemented by VBE;
- Geographically and temporally comparable;
- Attached to a clear and ambitious goal; and
- Is actionable.

In addition to the 11 high-level recommendations and the metrics suggested in Appendix D, complementary suggestions for VBE aspirational sustainability objectives are found in Appendix G.

**Recommendation 6: Compile a set of metrics to track progress.**

Progress on goals and targets is most easily and effectively tracked with a defined set of indicators.
3.4 A Systematic Approach to Sustainability

Embedding the greenest school board commitment into the organization is an ongoing learning experience with ups and downs. A management system is an effective approach to this challenge, a continuous cycle of planning, implementing, evaluating and revising plans.

**Recommendation 7:** Adopt a systematic sustainability approach to enable focus, prioritization and accountability.

This system should include: comprehensive key result areas (KRA); goals; indicators; ambitious targets; regular reporting on progress; accountability mechanisms; ongoing engagement of stakeholders; preparation of annual or multi-year action plans; and tracking, corrective action, and evolution of the approach over time. Ultimately, the sustainability management system should result in significant improvements to environmental performance in all KRAs, and should demonstrate that VBE’s performance meets or exceeds other leading districts in North America.

The Sustainability Framework includes goals, key result areas, indicators and targets. Other considerations to implement the framework include:

- **A reporting regime:** A reporting regime needs to be developed, including an annual report to stakeholders that assesses the indicators, tracks progress against targets and assesses progress. This report will provide the basis for revising targets and prioritizing actions every 1 or 2 years.

<table>
<thead>
<tr>
<th>Reporting regime</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual reporting to Committee</td>
<td>1 year</td>
</tr>
<tr>
<td>Annual Work and Budget Planning</td>
<td>1 year</td>
</tr>
<tr>
<td>Revised action plan</td>
<td>2-3 years</td>
</tr>
<tr>
<td>Revised targets</td>
<td>3-5 years</td>
</tr>
<tr>
<td>Revised goals and indicators</td>
<td>5 years—possibly as needed</td>
</tr>
</tbody>
</table>

- **Policy integration:** The sustainability framework and the greenest school board will be integrated into all planning processes at VBE so that there are no policy disconnects between goals and objectives.
- **Job descriptions:** Broaden the responsibility for the greenest school board mandate throughout the organization by incorporating relevant responsibilities into job descriptions.
3.5 Action Prioritization

VBE has many sustainability (and other) activities under way (and potential for many more) and prioritizing efforts is difficult. Based on the feedback from the consultations and the policy analysis, a series of criteria against which to evaluate potential actions were identified. These criteria are formulated using a structured decision-making tool called multi-criteria analysis (MCA). MCA is a simple structure for rating the performance of actions against criteria and weighting the importance of those criteria. The overall framework is the VBE Action Prioritisation Tool, which the sustainability team can customise as needed. As an example, the framework is populated with suggested actions from the community engagement. A static example from the tool is provided in Appendix E.

Recommendation 8: Prioritize goals and targets so that efforts can be focused on projects, plans, policies, strategies and initiatives with highest impact.

With limited staff and financial resources, a more selective approach can be used to prioritise those activities that advance the overall vision and goals.

3.6 Partnerships

Staff efforts have been made to develop an MOU with the City of Vancouver on sustainability. There are other opportunities for partnerships on environmental sustainability with Vancouver Parks Board, University of British Columbia, BCIT, Vancity, as well as a range of non-profit organizations.

Recommendation 9: Focus sustainability staff time on securing strategic partnerships, leveraging staff and volunteer resources from other organizations, seeking funding opportunities, setting policy and strategic plans, and other activities that will clarify strategic direction and build the overall capacity for education and support to educators.

There are many organizations that share similar goals with and can support VBE in its efforts. This is critical, given the highly constrained fiscal environment.
3.7 Outreach and Communication

Outreach and communication is a critical element of successfully engaging all stakeholders and needs to be a pillar of the greenest school board goal. A focus on outreach ensures an engaged community, a transparent process and builds buy-in and ownership amongst stakeholders and community organizations.

Recommendation 10: Invest in communications and engagement for district-wide sustainability initiatives to ensure successful roll-out, uptake and participation.

Investments should be made to build a culture of sustainability in the organization and stakeholders by embedding sustainability content and expectations in training, orientation, professional development, committees and other areas. Sustainable choices should become the default, easy, expected option in decision-making. VBE systems, incentives, evaluations, training and orientation, performance management, and other systems should reinforce this.

3.8 Project and Programming Funding

The major barrier to sustainability action implementation that was heard in the interviews was lack of funding. In order to fund and implement sustainability projects that will help VBE achieve its goal, it will have to be more proactive in generating and securing funding.

Recommendation 11: Secure reliable funding mechanisms for sustainability programming and projects.

Increasing numbers of institutions and organizations in the public sector are using reserves or revolving loan funds to drive down long-term operating costs in a systematic fashion. VBE can use the same approach to provide ongoing financing for sustainability projects and programs, some of which could generate financial returns.
4. Conclusions

At a high level, VBE is positioned as a leader, including the sustainability framework, this environmental audit, and its ambitious goal to be the greenest school board in North America. However, there is considerable work required to translate this aspiration into a similar leadership position in VBE’s operations, the education that VBE provides to its students and its role in the community.

Elementary and secondary schools are hives of sustainability activity, with actions often generated by students and teachers. Harnessing the champions and the popular activities will bolster the VBE’s sustainability outcomes while solidifying its direction.

VBE can undertake further efforts to systematise its approach to environmental sustainability, creating a system of metrics against which to track progress, incorporating relevant responsibilities into job descriptions, developing a regular reporting regime, and filling in policy gaps. These measures will further incorporate environmental sustainability into the DNA of the organization.

The assessment of promising practices amongst other school boards indicates that there are similar and parallel efforts to advance sustainability underway in those jurisdictions. Of the school boards studied, none stood out clearly as leaders of the pack. There is an opportunity for VBE to lead the creation of a school board sustainability framework with other leading school boards.

VBE faces considerable challenges; the most notable being financial resource constraints. Other assets abound, however, including the dynamism and creativity of educators and students. VBE is not alone in this journey and it will benefit from aligning and coordinating its efforts with partner organizations in the Vancouver area. The City of Vancouver, UBC and Vancity have staked out leadership ambitions of a similar magnitude to those of VBE and there are many opportunities for combined efforts.

Becoming the greenest school district in North America is no small feat. The effort will require fostering a culture of sustainability throughout the VBE operations, staff and students. VBE can be successful in this endeavour by providing the needed direction on sustainability while drawing inspiration from the actions and character of its own students and teachers who are already demonstrating sustainability leadership.
VBE Environmental Sustainability Audit
Summary Report Appendices
May 14, 2014

Prepared by
Sustainability Solutions Group
Appendix A
Environmental Audit Inventory Synopsis
VBE Environmental Audit Inventory Synopsis

Contents

Section 1: Introduction 1
1.1 Statement of Context 1
1.2 Vancouver Board of Education Profile 1
1.3 State of sustainability accounting 1
1.4 Motivations for Environmental Audits 3
1.5 Frameworks for VBE’s Environmental Audit 4
1.6 Defining the Audit Scope 6
1.7 Understanding Performance 7
1.8 Audit Methodology 8

Section 2: Document and Websites Review 9
2.1 Policies and Practices in VBE 9
2.2 School-level Projects and Initiatives 13
2.3 Provincial Policy 15
2.4 Other relevant initiatives 15
2.5 International Initiatives 16
2.6 Policy Environment Summary 17

Section 3: Stakeholder and Youth Engagement 18
3.1 Stakeholder Interviews 18
3.2 Youth Engagement 21

Section 4: Survey Summaries 23
4.1 Survey Demographics 23
4.2 Familiarity with VBE Sustainability Policies, Programs, Groups and Activities 24
4.3 Effect of VBE Sustainability Activities on Lifestyle 25
4.4 VBE Sustainability Pride 25
4.5 Definition of a Green School Board 26
4.6 How Would You Know it if VBE Were the Greenest School Board in North America? 26
4.7 Greenest School District Focus 27
4.8 What is Most Important to Help VBE be More Sustainable? 28
4.9 Other Comments 29

Section 5: Conclusions 30
List of Tables

Table 1: Different approaches to sustainability management  
Table 2: Internal and external motivations for sustainability reporting  
Table 3: Accountability AA1000 Principles  
Table 4: Comparison of frameworks  
Table 5: Relationship between impacts and activities  
Table 6: Spectrum of public sector leadership on sustainability  
Table 7: Differences between sustainability reporting and financial reporting  
Table 8: Schools engaged is the sustainability baseline work

List of Figures

Figure 1: Areas of impact and activity for VBE  
Figure 2: VBE Sustainability Framework  
Figure 3: VBE school sustainability initiatives  
Figure 4: The Policy Environment for VBE  
Figure 5: Survey demographics  
Figure 6: VBE Policy Familiarity  
Figure 7: Effects of VBE sustainability initiatives  
Figure 8: Where to focus in order to become the greenest school board in North America  
Figure 9: Priorities for helping VBE be more sustainable
Section 1: Introduction

1.1 Statement of Context
The VBE Sustainability Framework states that “The Vancouver Board of Education will be the greenest, most sustainable school district in North America.” The first component of achieving this goal is to perform an environmental audit. The VBE environmental audit has five central goals:

1. To inventory the Board’s sustainability activities;
2. To understand what other leading school districts in BC and North America are doing to pursue sustainability;
3. To compare the Board’s activities against available standards (including the Sustainability Framework & the Strategic Plan), and where possible, other suitable reporting structures;
4. To identify successes and gaps, and areas where the Board could take more action; and
5. To define activities that are suitable for establishing goals and targets.

This document identifies where the VBE currently stands with respect to its sustainability efforts, summarizing what VBE is doing now in terms of sustainability policies, practices and projects.

1.2 Vancouver Board of Education Profile
Vancouver Board of Education is a corporation under the BC Schools Act with a range of powers, some of the most important of which include establishment and closure of schools, management of schools and property, enrollment in and provision of educational programs, specialty academics, use of board property, and training of student teachers. VBE provides education for kindergarten to grade 12, adult and continuing education, distributed learning and summer school to 54,000 full time equivalent students in 97 schools and 7 education centres. The catchment area of VBE corresponds with the City of Vancouver, a population of 603,502 in the 2011 census. The total budget of VBE in 2013-2014 was $492.1 million.

1.3 State of sustainability accounting
Environmental reporting began in the private sector in the early 1990s as a genuine effort to inform stakeholders of the environmental impact of businesses by companies such as Norsk Hydro and the Body Shop. The UK government was one of the first countries to produce a sustainable development strategies following the Rio Earth Summit in 1992. Corporate Social Responsibility (CSR) reporting gained traction in the private sector due to concerns about labor impacts in supply chains and human rights abuses, particularly child labour. Triple bottom line reporting was the next significant trend, in which social, environmental and economic pillars were independently report and most recently integrated reporting unifies financial and sustainability reporting. Various standards and frameworks have emerged as the field has developed including ISO 14001 (1996), an environmental management standard, the Global Reporting Initiative (GRI) (1997), ISO 26000 (2004) on social

---

responsibility and the Integrated Reporting Framework (2013). Many organisations use multiple systems or frameworks. For example, Vancity is a recognised leader in sustainability reporting and prepares integrated reports using the GRI framework\(^5\). Additionally, particular sectors have developed certification systems such as Leadership in Energy and Environmental Design (LEED) for the building sector in North America and Sustainability Tracking, Assessment & Rating System (STARS) for colleges and universities. Table 1 describes different approaches to engaging in sustainability management.

**Table 1: Different approaches to sustainability management**

<table>
<thead>
<tr>
<th>Management system</th>
<th>Reporting framework and guidance</th>
<th>Certification system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>Support continuous improvement</td>
<td>Ensure transparency of impacts</td>
</tr>
<tr>
<td>Approach</td>
<td>Policies</td>
<td>Indicators</td>
</tr>
<tr>
<td>Performance standards</td>
<td>None</td>
<td>Determined by applicant organisation against indicators</td>
</tr>
<tr>
<td>Recognition</td>
<td>Certification of process</td>
<td>Certification not necessary.</td>
</tr>
<tr>
<td>Flexibility of application</td>
<td>Broad-based.</td>
<td>Broad-based.</td>
</tr>
<tr>
<td>External validation</td>
<td>Of policies and processes</td>
<td>Of transparency</td>
</tr>
<tr>
<td>Examples</td>
<td>ISO 14001</td>
<td>GRI</td>
</tr>
<tr>
<td>Applicable to VBE</td>
<td>Possible</td>
<td>Yes</td>
</tr>
</tbody>
</table>

1.4 Motivations for Environmental Audits

Public value can be enhanced by taking a longer term view and focussing on well-being as opposed to short term financial management, which can result in unintended and costly decisions- for example trucking food in long distances generates pollution, noise and road deaths while failing to enhance the health of those who consume it. Environmental reporting can identify additional, often forgotten or neglected sources of risk and increase the resilience of an organisation. In the public sector, moral and ethical reasons are more pronounced than in the private sector because of the role of the public sector in safeguarding the common good and the public interest—the social contract. Table 2 describes a range of internal and external factors that support environmental auditing and reporting for a public sector organisation.

Table 2: Internal and external motivations for sustainability reporting

<table>
<thead>
<tr>
<th>Internal motivations</th>
<th>External motivations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain better information</td>
<td>Improve stakeholder communication</td>
</tr>
<tr>
<td>Improve risk management</td>
<td>Improve accountability and transparency</td>
</tr>
<tr>
<td>Create a systematic approach</td>
<td>Build trust in the public sector</td>
</tr>
<tr>
<td>Improve performance</td>
<td></td>
</tr>
<tr>
<td>Save resources and money</td>
<td></td>
</tr>
<tr>
<td>Improve staff satisfaction</td>
<td></td>
</tr>
<tr>
<td>Avoid unintended outcomes</td>
<td></td>
</tr>
<tr>
<td>Build a resilient organisation</td>
<td></td>
</tr>
</tbody>
</table>

1.5 Frameworks for VBE’s Environmental Audit

There are no accounting frameworks that directly relate to an environmental sustainability audit of a school board. However, there are standards that were reviewed to help guide this process.

Global Reporting Initiative (GRI)

GRI’s Guidelines offer Reporting Principles, Standard Disclosures and an Implementation Manual for the preparation of sustainability reports by organizations, regardless of their size, sector or location. The Guidelines are developed through a global multi-stakeholder process involving representatives from business, labor, civil society, and financial markets, as well as auditors and experts in various fields.

GRI principles were used to scope the auditing process. GRI is designed as a full sustainability framework, incorporating social, economic and environmental dimensions. Since this project focuses on environmental dimensions only, the GRI indicators were reviewed and a subset of applicable indicators was identified. These indicators guided data collection.

AccountAbility

AccountAbility is an international standard designed to support organizations in acknowledging, assuming responsibility for and being transparent about the impacts of policies, decisions, actions, products and associated performance. The AccountAbility principles were used as a framework in identifying the scope for this audit.

AA1000 AccountAbility principles aim to:

- Establish a strategy based on a comprehensive and balanced understanding of, and response to, material issues and stakeholder issues and concerns;
- Establish goals and standards against which the strategy and performance can be managed and judged; and
- Disclose credible information about strategy, goals, standards and performance to those who base their actions and decisions on this information.

Table 3: AccountAbility AA1000 Principles

<table>
<thead>
<tr>
<th>AA1000 Principle</th>
<th>Description</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusivity</td>
<td>The participation of stakeholders in developing and achieving an accountable and strategic response to sustainability. Inclusivity requires the consideration of ‘voiceless’ stakeholders including future generations and the environment.</td>
<td>As this is the first report, a set of stakeholders was identified by VBE staff for detailed interviews. An interview protocol was created. Additional youth engagement was led by Environmental Youth Alliance.</td>
</tr>
<tr>
<td>Materiality</td>
<td>Determining the relevance and significance of an issue to an organization and its stakeholders.</td>
<td>Materiality was evaluated by considering the scope of existing activities of VBE, interviews with a broad set of stakeholders, review of best practices from other school boards and review of approaches by other jurisdictions.</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>How an organization demonstrates it responds to and is accountable to its stakeholders.</td>
<td>Since this is the first such report, responsiveness was not evaluated.</td>
</tr>
</tbody>
</table>

The Earth Charter


While not explicitly a sustainability framework, the Earth Charter is a set of values and principles on how to build a just and sustainable global society – an ethical blueprint. Some organizations are using the Earth Charter as a framework for assessing their performance, however it is global and high level in its focus. The Earth Charter may be an applicable standard to help frame educational programming.

**STARS**

STARS is a sustainability indicator framework developed by the Association for the Advancement of Sustainability in Higher Education (AASHE) for the higher education sector in North America. Similar in its approach to the LEED green building standard, STARS has become the default reporting framework colleges and universities. It includes social, economic and environmental dimensions.

**Table 4: Comparison of frameworks**

<table>
<thead>
<tr>
<th>Framework</th>
<th>Purpose</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRI</td>
<td>Operational reporting framework</td>
<td>Systematic approach; Broad uptake.</td>
<td>Does not capture educational dimensions of VBE. Some indicators are too detailed. It is an indicator framework and does not include insights on performance.</td>
<td>Selected indicators are used to guide data collection.</td>
</tr>
<tr>
<td>AccountAbility</td>
<td>Provides approach for sustainability assessment; principles for stakeholder engagement</td>
<td>Process-based a framework for an organisation to identify, prioritise and respond.</td>
<td>Primarily designed for use by external auditing bodies.</td>
<td>Framework used as guidance to inform audit approach.</td>
</tr>
<tr>
<td>Earth Charter</td>
<td>Aspirational goals for society</td>
<td>Explicit, goal oriented principles.</td>
<td>Limited uptake. Assessment process is less systematic.</td>
<td>The principles informed the scope of the audit</td>
</tr>
<tr>
<td>STARS</td>
<td>Indicator framework for higher education</td>
<td>Customised framework for educational setting. Rating system has public relations benefits.</td>
<td>Rating system is not directly applicable to VBE (designed for universities and colleges). More prescriptive than GRI in its approach.</td>
<td>Indicators were considered to enable benchmarking against other educational organizations.</td>
</tr>
</tbody>
</table>

1.6 Defining the Audit Scope

The sustainability framework’s commitment is to be the greenest, most sustainable school district in North America. The terms ‘green’ and ‘most sustainable’ have different meanings, as ‘green’ tends to refer solely to environmental issues whereas ‘sustainable’ incorporates social, ecological and economic issues in an integrated approach. This project’s analysis assumes an emphasis on ‘green’ and that sustainable refers to environmentally sustainable. In other words, the project is focussed primarily on environmental impact and the places where environment overlaps with economic and social impacts.

It was determined that the VBE environmental audit would be limited to VBE’s most significant areas of environmental impact and activity (Figure 1, note that impact can be positive and negative. Table 5).

**Figure 1: Areas of impact and activity for VBE**

**Table 5: Relationship between impacts and activities**

<table>
<thead>
<tr>
<th></th>
<th>Student Education</th>
<th>Staff Professional Development</th>
<th>Transportation</th>
<th>Grounds</th>
<th>Waste</th>
<th>Education</th>
<th>Procurement</th>
<th>Buildings &amp; Maintenance</th>
<th>Food</th>
<th>Operations</th>
<th>Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forests</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biodiversity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.7 Understanding Performance

VBE’s aim is to be the greenest school board in North America – a clear leadership position. However, depending on the performance of other school boards in North America, this position may or may not be adequate to address ecological imperatives such as climate change. An indicator framework such as GRI provides a system for continuous improvement in which targets are established, tracked, and revised. However, it relies on the organisation to set appropriate targets and the ambitions of that organisation frequently reflect the political and economic realities of the organisation’s context rather than the magnitude of the ecological challenges. Forum for the Future, a UK-based organisation has identified a sustainability leadership spectrum on which organisations can place themselves and then seek to achieve the next level (Table 6).

Table 6: Spectrum of public sector leadership on sustainability

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>At risk</td>
<td>Organisations at this level don’t ‘get’ sustainable development. Leaders don’t see it as a priority; it rarely features in policies, plans, resourcing discussions, training or development activities or evaluation, and where it does it is undermined by other activities or priorities.</td>
</tr>
<tr>
<td>Compliance-led</td>
<td>Organisations at the compliance level understand the legal requirements, and fulfil them as far as possible. A corporate strategy on sustainable development may exist, but it is poorly integrated with other strategies, and environmental, social and economic objectives are developed separately from each other. Where these objectives clash, trade-offs are made arbitrarily, often at the expense of the environment. Consultation with stakeholders tends to be on the ‘decide, announce, defend’ model and is done to fulfil legal requirement rather than to shape activity.</td>
</tr>
<tr>
<td>Incremental</td>
<td>Organisations at the incremental level are taking sustainable development more seriously, but still tend to see it as one of a number of competing priorities. Sustainability principles are being brought to bear retrospectively on existing policy and strategy, and fed into leadership development work in a similar way.</td>
</tr>
<tr>
<td>Strategic</td>
<td>Sustainable development is at the heart of strategy in many public sector bodies – which we identify as being at the strategic level. Most policies articulate their contribution to sustainability outcomes, most senior staff and politicians understand this priority, and serious attempts are made to reflect this approach in the allocation of resources. Leadership development, performance management, and internal and external communications all reflect this approach. But the organisation is still in cultural transition – and political change or turnover of key staff would still leave sustainability commitments vulnerable to revision.</td>
</tr>
<tr>
<td>Systematic</td>
<td>Sustainability thinking is hardwired into the culture of the organisation, and the values implicit in sustainable development are reflected in everything from staff mindsets to resource planning. Sustainability principles are at the heart of the business model for delivering public services. Tensions still exist – between short and long-term priorities, and between the scale of the challenge and the resources to tackle it. But systems thinking ensures the organisation avoids perverse or contradictory action in different service areas, and looks upstream to tackle problems more efficiently at source.</td>
</tr>
</tbody>
</table>

In considering its goals and targets, VBE needs to consider its position relative to other school boards, where it is on this spectrum and its performance relative to ecological limits. It is estimated that VBE is currently between Compliance-led and Incremental on this spectrum.

### 1.8 Audit Methodology

An environmental audit differs significantly in its focus and scope than a financial audit (Table 7). This report is an exploratory document to enable VBE to identify its approach to sustainability reporting and does not include all of the detailed steps and information provided in a comprehensive environmental audit.

**Table 7: Differences between sustainability reporting and financial reporting**

<table>
<thead>
<tr>
<th></th>
<th>Emphasis in financial reporting</th>
<th>Emphasis in sustainability reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time-scale</td>
<td>The reported year</td>
<td>Future orientation</td>
</tr>
<tr>
<td>Focus</td>
<td>Issues that organisation directly controls</td>
<td>Wider sustainability impacts</td>
</tr>
<tr>
<td>Economic view</td>
<td>Material</td>
<td>Intangible</td>
</tr>
<tr>
<td>Data</td>
<td>Financial</td>
<td>Non-financial</td>
</tr>
<tr>
<td>Materiality</td>
<td>Financial significance</td>
<td>Any information that is significant to readers</td>
</tr>
<tr>
<td>Users</td>
<td>Shareholders and investors</td>
<td>Stakeholders</td>
</tr>
</tbody>
</table>

The approach to establish VBE’s environmental sustainability baseline included:

- Exploring useful reporting frameworks and an establishment of a recommended hybrid framework for VBE;
- Establishing the audit scope;
- Evaluating how the VBE ranks on a spectrum of sustainability leadership in the public sector;
- Performing a background review of sustainability-related documents provided by VBE staff and found on VBE websites (policy documents, reports, plans, guidelines, etc.);
- Conducting interviews with select VBE stakeholders;
- Hosting a discussion session with a mixed student and teacher group;
- Hosting a discussion session with the Sustainability Advisory Committee;
- Hosting workshop sessions with student groups at several schools; and
- Conducting an online survey.

This approach yielded information about the VBE’s environmental sustainability directives, their uptake in the consciousness of VBE staff, and their on-the-ground application.
Section 2: Document and Websites Review

2.1 Policies and Practices in VBE
This section provides a review of policies and practices related to environmental sustainability in the VBE. Policies are directives set by the Board of Trustees or VBE management. They are written documents with target audiences and applications. Practices are policy-like, loosely formalised, and consistently applied but not written down or approved by the Board.

Strategic Plan
In 2010, the Vancouver Board of Education launched the Strategic Plan 2011-2016\(^{11}\) with four goals:

1. Students are fully engaged in learning
2. All students are included and have the opportunity to succeed
3. Our communities, families and educational partners are effectively engaged in supporting student success
4. Our school district is efficient, effective and sustainable

The strategic plan includes strategies relating to sustainability in education and buildings. Under the first goal, Strategy 8: *Promote socially responsible behaviour in both the real and virtual societies* includes the following sub-strategies:

8.1. Develop and implement sustainability education initiatives within the district
   - Develop green initiatives for and with schools
   - Add an educator to the Sustainability Team
   - Clarify the roles and responsibilities of the Sustainability Team

8.2. Create more opportunities for student-to-student positive engagements
   - Continue to support the District Student Council and the ‘Sister School Switch’
   - Continue to offer school programs through CST- facilitated by secondary students for elementary students
   - Use the Leadership Program at Windermere as a model for other secondary schools
   - Explore the implementation of a Citizenship course similar to the one offered by the Calgary Board of Education

Under the fourth goal, Strategy 4: *Ensure healthy, safe and sustainable facilities and workplaces* includes a commitment to sustainable design:

4.1. Advocate for new school renewal strategy
   - Develop contractor standards, guidelines for new and renovated space
   - Develop school design principles
   - Strive for LEED GOLD or equivalent for sustainability
   - Ensure sustainable design

http://www.VSB.bc.ca/sites/default/files/publication-files/VSB_StrategicPlanandgoalsJan302012.pdf
There is also a commitment to extend the influence of VBE beyond school borders, in order to accept wider responsibility and to root schools firmly in the community, for funding opportunities, for collaborations and to improve the overall well-being of the community through community service and partnerships. Potential partners include parks, libraries, businesses, and theatres. This effort feeds into a communications strategy to promote VBE’s actions as a more inclusive organization.

**Sustainability Framework**

Approved in September, 2010, the Sustainability Framework commits to making “sustainability a core, embedded and pervasive element in our school system, something that is an integral part of everything we do, from what and how we teach and learn, to how we retain employees, maintain our facilities, balance our budgets and cultivate relationships within our system and with the community”.\(^{12}\) The framework includes these guiding principles:

- The VBE will be a sustainability leader in all aspects of our operations.
- The VBE will be the school district that others look to for inspiration and innovation on ideas that connect education and sustainability.
- The VBE will incorporate sustainability into all aspects of how we as a district function.
- Sustainable thought and action will be integral to what we do and how we do it.
- The VBE will look for best practices from other jurisdictions and school districts and seek and support innovative internal solutions to our sustainability challenges.
- The VBE will establish strong goals and targets in Key Result Areas and will establish a process to continually review our progress towards those goals.
- Where appropriate, the VBE will work with other entities to ensure its goals and targets connect with complimentary sustainability plans and goals.

The Framework includes goals for six key result areas including:

- **Education & Organizational Culture:** Educate staff and students on environmentally sustainable workplace and lifestyle practices and develop a culture of sustainability within the organization.
- **Procurement and supply chain management:** Purchase products with low environmental impact. Give consideration during procurement processes to suppliers who demonstrate socially responsible work practices in the areas of social accountability, environmental sustainability, ethical business behaviour and equitable employment processes.
- **Resource & waste management:** Reduce resource consumption and the generation of waste while maintaining or enhancing operational effectiveness and workplace productivity.
- **Energy & climate change:** Reduce electricity and heating loads in an effort to conserve and reduce greenhouse gas emissions while maintaining or enhancing user comfort and convenience.
- **Technical design standards:** Build or retrofit buildings to qualify for or exceed LEED building standards.
- **Transportation:** Reduce transportation related emissions.

Each goal also includes a range of current actions and current commitments. There have been no updates or reporting on the implementation of the framework, however, initiatives supporting the framework are underway.

Other policies and strategies

Buildings and infrastructure fall under the jurisdiction of the **VBE Capital Plan**, a framework for all upgrades, renovations and new builds.  

Energy conservation is included in the discussion but not as one of the recommended planning principles under the Board’s new planning aims.

The discussion within the Capital Plan notes that energy and carbon must be considered to meet regulatory requirements and to achieve broader VBE aims.

The discussion in the proposed **Guiding Principles** notes that the Facilities and Sustainability Offices are participating in the Architecture 2030 Challenge which seeks to achieve reductions in energy/carbon use intensity.

---

http://www.VSB.bc.ca/sites/default/files/13Sept18_op_commi_item2%20-%20revised.pdf

of 70% below average for that building type by 2015, 90% below average for 2025 and carbon neutral by 2030,\textsuperscript{15} however no formal commitment to this target was identified and there is no reporting on how the VBE is achieving this target.

Most upcoming significant capital expenditures are being driven by requirements for seismic upgrades. VBE commissioned an analysis of 48 schools with significant seismic risk in 2011 that determined the cost of seismic upgrades to be $618 million. The cost to upgrade the schools beyond seismic was $1,085 million whereas replacing the schools, including seismic upgrades, was $857 million.\textsuperscript{16} Broader sustainability criteria such as embodied carbon in buildings and the environmental impact of the disposal of demolition materials were not considered because they was deemed beyond the scope of the analysis. The environmental benefits of high performance buildings were deemed to offset these impacts while insufficient evidence was found to support the monetisation of the impacts.

A Garden Policy outlines the principles that justify VBE’s support for school gardens and provides guidelines and a process for establishing a school garden project.\textsuperscript{17}

A draft Food Action Plan (2011) seeks to connect all six of the Key Result Areas from the VBE Sustainability Framework.\textsuperscript{18} For each Key Result Area, the plan identifies a strategy, a target and short term and long term actions. A Resource Use and Waste Reduction Action Plan (draft) uses a similar approach\textsuperscript{19} and includes a specific Print Strategy, also a draft.\textsuperscript{20}

There are twelve Community School Teams, with programs in “environmental stewardship, global citizenship and leadership development”.\textsuperscript{21} These programs rely on parents, high school students, teachers and residents as volunteers to provide after school care and services to children and families. The program has established partnerships and relationships, with the local community as a trusted intermediary.

A draft Memorandum of Understanding between the Vancouver Board of Education and the City of Vancouver had been initiated at the staff level to establish “a non-legally binding framework and set of principles for an enhanced approach for coordination and collaboration between the parties to support our shared interests relative to the VBE’s sustainability goals and actions and Vancouver’s efforts on the Greenest City Action plan”.\textsuperscript{22}

\textsuperscript{15} Ibid
\textsuperscript{22} Vancouver Board of Education and City of Vancouver (2011). Memorandum of Understanding- The Vancouver Board of Education: District No. 39 and the City of Vancouver will work together to help both organizations achieve their respective sustainability goals (draft).
2.2 School-level Projects and Initiatives

A comprehensive inventory of sustainability projects by school was recently created by VBE staff. It includes projects in the categories of saving electricity, heating, envelope and natural gas, renewable energy, food systems, transportation, student initiated, waste management, NGOs/student engagement (Appendix 1).

Figure 3 presents this inventory in a relationship visualization of schools, types of sustainability initiatives and sustainability themes. This visualization shows VBE schools and their connections to the various sustainability initiative types that they are implementing. The size of the schools’ symbols indicates the number of different initiatives they are implementing (larger = more), while the weight of the lines connecting them to each initiative type indicates the number of initiatives within that theme type they are implementing (thicker = more).

The graphic shows that transportation is the most prominently covered theme across the board, however, it is primarily implemented in elementary schools. The second most implemented theme is food systems, while renewable energy and student-initiated strategies are least present. Secondary schools appear to be implementing more initiatives each, all showing approximately 5-15 initiatives per school, while elementary schools are mostly showing 5 and fewer.
Figure 3: VBE school sustainability initiatives.
2.3 Provincial Policy

The Carbon Neutral Government Regulation\(^\text{23}\) requires that Public Sector Organizations including school boards to determine, report and verify greenhouse gas emissions, acquire or dispose of emission offsets in order to be carbon neutral and submit a carbon neutral report to the Minister. VBE publishes its annual carbon neutral reports on its website. In 2012 VBE reported 17,111 tCO2e and purchased offsets at a total cost of $427,775.\(^\text{24}\) The report also identifies the range of actions undertaken by VBE to reduce GHG emissions.

In 2012, the Province approved $122 million for 14 VBE schools. Any provincially-funded major renovations or new builds are required to achieve LEED Gold or equivalent, a more specific requirement than in the VBE Sustainability Framework which commits buildings to qualify for or exceed LEED standards.

The K-12 Sustainability Education Framework was a response to BC’s growing research and provision in sustainability and environmental awareness amongst citizens. The curriculum is as integrated into a number of subject areas as possible. Students learn systems thinking, values language and a range of ecological and environmental concepts (Sustainability Education Framework, 2008). Two years later, the framework was re-published. The modules tackle environmental ethics, ecology challenges and solutions, economics, design and transportation, and promote more active responsibility for the students (Sustainability Course Content: A Curriculum Framework 2010). The BC Ministry of Education is currently reviewing curriculum\(^\text{25}\) and there is concern that whereas Environmental Education was fully integrated in the previous curriculum, in the new approach environmental education only appears under standards for Grades 3-4 and Grades 5-9 respectively as:

- Identify some simple implication of their and others’ actions on the environment.
- Identify some of the social, ethical and environmental implications of the findings from their own and others’ investigations.

Further, it is not clear if the Sustainability Course Content will still be applicable to the new curriculum.

2.4 Other relevant initiatives

VBE’s commitment is to be the greenest school board in North America. Other institutions and organizations in the neighbourhood have similar and supporting ambitions.

The City of Vancouver’s goal of becoming the greenest city in the world is detailed in an Action Plan established by Council in 2011 that includes 10 goal areas and 15 targets in three areas of focus: carbon, waste and ecosystems.

The Vancouver Park Board Strategic Plan was established in 2012 and includes a direction of being a Leader in Greening, and includes the following goals and objectives:

- **Goal 3: Green Operations**
  - Objectives: Sustainable Operations; Greener Spaces
- **Goal 4: Healthy Ecosystems**
  - Objectives: Green Stewardship; Local Food Systems; Green Education and Advocacy


\(^{25}\) See BC Ministry of Education: Transforming Curriculum & Assessment at: https://curriculum.gov.bc.ca/
University of British Columbia’s strategic plan, Place and Promise, commits all aspects of the University to explore and exemplify social, economic and environmental sustainability. UBC’s initiatives include a focus on the campus as a living laboratory with four priorities:

1. Integration with UBC’s core academic mandate (research and teaching);
2. Partnerships between the University and the private, public and NGO sectors;
3. Sound financial use of UBC’s infrastructure; and
4. Opportunity to transfer the knowledge UBC gains into practical, positive action applicable to the greater community.

Vancity Credit Union has a broad vision of redefining wealth that includes providing clear environmental sustainability leadership in the financial sector.

2.5 International Initiatives
The United Nations has declared 2005-14 as the Decade of Education for Sustainable Development, with United Nations Educational, Scientific and Cultural Organisation (UNESCO) as the lead organization. The Council of Ministers of Education of Canada has committed to incorporating sustainable development themes into formal, non-formal, and informal education and to report on this implementation to UNESCO.

Some of the key characteristics of education for sustainable development identified throughout the literature are:

- Interdisciplinary and holistic: sustainable development should be embedded in the whole curriculum, not a separate subject.
- Values driven: the assumed norms—that is, the shared values and principles underpinning sustainability—are made explicit.
- Critical thinking and problem solving: development of these skills leads to confidence in addressing the dilemmas and challenges of sustainability.
- Multi-methods: a variety of pedagogies should be used. Teaching that is geared simply to passing on knowledge should be recast into an approach in which teachers and learners work together to acquire knowledge and play a role in shaping the environment in their educational institutions.
- Participatory decision making: learners should participate in decisions on how they are to learn.
- Locally relevant: education for sustainable development should address local as well as global issues, and use the language(s) that learners most commonly use.

Education for sustainable development has gained significant traction in many countries at the level of educational policy.
2.6 Policy Environment Summary
Figure 4 depicts the current and draft policies that support VBE’s efforts to become the greenest school board in North America.

*Figure 4: The Policy Environment for VBE.*
Section 3: Stakeholder and Youth Engagement

3.1 Stakeholder Interviews
Consultants worked with VBE staff to identify key stakeholders to interview as part of the audit background review. Stakeholders included important decision-makers on sustainability topics (Trustees, senior management, staff with critical roles on sustainability projects and practices) as well as leaders on the inclusion of sustainability in education and school management. Overall, 18 people were interviewed and 16 separate interviews were conducted.

This section summarizes the collected responses to each question. The interview questions were grouped in two themes: Assessing/Auditing and Visioning, Opportunities and Challenges.

Part 1: Assessing/Auditing
1. What VBE sustainability policies, practices and projects (“PPP”) are you aware of?
Interviewees provided varying degrees of knowledge on this question. People with more specific roles tended to focus on the PPPs that they were directly involved with in their work. Senior managers, Trustees, and sustainability-focused staff all had comprehensive knowledge of this question, particularly the policy framework within which they are operating. The policies and practices that were most commonly mentioned, and seemed to have the most focused attention, were those related to carbon (particularly building design, operations and maintenance, electric vehicles in the fleet) and waste management (particularly recycling, paper use, and organics). Other topics also mentioned (by fewer people) included: transportation, food, procurement (beyond paper), water conservation, and the need to strengthen links between operational sustainability initiatives and educational opportunities. Different interviewees had experienced a variety of different pilot projects and had good knowledge of these. They ranged from different energy system pilots (i.e.: solar hot water, geothermal, photovoltaic), to market gardens and many others.

2. Who do you consider as significant stakeholders in VBEs work on sustainability? Which ones are or are not regularly included in discussion/consultation on the subject?
Most interviewees listed all of the stakeholders typically considered in VBE work, including Trustees, senior management, principals and vice-principals, teachers, students, parents. Many people indicated the particular importance of students as stakeholders, and that the purpose of the whole organization was in support of them. Very few interviewees recognized stakeholders external to the VBE, for example Provincial or City governments, school neighbours, organizations that partner with schools, etc.

3. Is sustainability literacy included in the education that students receive?
Many interviewees on the operations side did not feel knowledgeable enough to answer this question. Those that had more direct experience with students, teachers and curriculum responded by saying that sustainability was often included in the curriculum, particularly in social studies and science, however that it was largely dependent upon the knowledge and passion of each individual teacher as to how deeply to integrate this into their teaching as there are no district-wide sustainability literacy goals. Integration is also highly dependent on each principal and on the school plan that is developed, however inclusion of sustainability is not a requirement. Some examples of particular courses at specific schools were held up as models of sustainability literacy, and some indicated hope that these could be expanded more throughout the district and/or made core programs rather than electives.
4. **Are sustainability responsibilities included in any job descriptions and/or governance systems?**

Most people responded no to this question. There were a few noted exceptions, including the Coordinator of Sustainability and the Manager of Energy and Sustainability. Some senior managers felt that sustainability was implicitly an expectation of their position, however no one said that sustainability actions or performance metrics were included as a part of their performance reviews with the exception of the two positions focused on sustainability. Formal performance reviews, however, were not described as a regular activity at the VBE.

5. **Are you aware of any sustainability standards, protocols, best management practices, etc. that VBE subscribes to?**

LEED was the most commonly mentioned, with other mentioned more accurately representing policies and practices considered in question 1. Those relevant to this question include EPEAT gold requirement for electronics, Energy Star for appliances, and Bill 44 carbon reporting requirements.

6. **Given all of the policy, practice and projects, and who you consider as VBE’s sustainability stakeholders, what topics/themes do you think are the most important for the VBE to include in this sustainability audit? Why?**

Responses were generally clustered in three themes, with the first one (called “management systems”) being the most commonly cited by a significant margin.

**Management systems:** clearly identify goals and targets with accountabilities for achieving them; describe and demonstrate how important sustainability work is relative to other priorities; focus efforts on projects with highest positive sustainability impact; leadership to demonstrate with actions not only words relative importance of sustainability; sustainability needs to be fully integrated into decision-making (e.g. financial, educational) and not seen as a siloed “department” of its own.

**Resource use and efficiency.** Most comments focused on carbon and energy management: thinking beyond LEED to strategies that support ongoing VBE needs (like passive design standards for energy efficiency); focus on facilities as biggest contributor to carbon footprint; more comprehensive transportation initiatives; is a strong financial driver as well. Some interviewees also mentioned waste and recycling, procurement, gardens/food, and water efficiency.

**Student centred:** support student initiatives; make stronger links between operational practices and student learning; stay connected to the moral sustainability imperative and how that affects the adult lives of students; outdoor classrooms.

**Part 2: Visioning, Opportunities and Challenges**

7. **The VBE has a goal of becoming the greenest, most sustainable school district in North America. What does this mean to you? How would you define a ‘green’ school board? In 10 years, how would this goal change the VBE?**

There was a good range of responses here, with most people sticking largely to the same themes discussed in previous questions and suggesting that current VBE efforts should continue to advance. Many people questioned whether or not this goal was real, and if the necessary resources and attention would be put toward realising the goal. Several mentioned the need to clearly articulate what this goal means, and to put some more specific metrics and accountabilities to the goal to make it more meaningful. Many respondents agreed that stronger sustainability in education initiatives needed to be put in place, that this should be more
fully resourced with staff, and more fulsome connections between education and operations should be brought into the system.

A few respondents took the “vision” question further and included: zero footprint (100% sustainable energy, all waste reused); no driving to school; locally sourced food; natural spaces at all schools; choose rethinking, reduction and reuse of materials (particularly technology); explore very different ways of designing and operating buildings; more fully utilise land base for city-wide sustainability initiatives; become more connected to neighbourhoods and city-wide initiatives through partnerships; and that people can see a deliberate effort to put a sustainability lens on everything that the VBE does.

8. Where do you look for innovation and inspiration on sustainability?

Many people spoke to their colleagues and peers, particularly those tasked with leading sustainability efforts at the VBE, peers and leaders in their specific area of responsibility, and at the City of Vancouver. Most interviewees spoke to the energy and passion that students bring to their work on sustainability at the VBE. Some spoke to the moral imperative of working toward a sustainable future as a strong inspiration and motivator for them.

9. What VBE sustainability policy, program or practice are you most proud of and why?

Almost all interviewees talking about specific initiatives happening in the schools, including gardens, annual sustainability conference, recycling, and others. A common theme in many of the projects that people were most proud of was the ability to achieve real results with very little in terms of resources, and this was common for people who mentioned both student- and staff-led initiatives.

10. Where are some of the greatest opportunities to initiate or enhance sustainability policy, programs, and practice? What is required to bring these to fruition?

Themes and Topics: Fuller utilisation of the VBEs rich land assets; building reasonable partnerships the build on the strengths of the VBE yet bring much needed resources to the table; more focused efforts on transportation and waste management; viewing every new school as an opportunity to make it more sustainable; waste management

Process, Budget and Management: integrating sustainability responsibilities clearly into job descriptions and performance reviews, as well as policy and clear accountability processes; integrate sustainability into capital program; better communications between operations and educational parts of the organization to encourage collaboration

Unique Role of VBE: every school as a neighbourhood centre of sustainability; students to take sustainability practices home with them; holistic integration of sustainability into curriculum.

11. What are some of the barriers that might be in the way of achieving this goal?

Resources were most often raised as the most significant barrier, including financial, staff time, and available expertise. Changing the mindset of people and organised groups throughout the organization to integrate sustainability into their decision-making was commonly mentioned. Lack of focused efforts, clear direction and communication from leadership, and prioritisation made it challenging for people to understand how sustainability should be considered amongst other priorities and efforts.
12. **Who are the most important people to demonstrate leadership on sustainability at VBE, and what does that leadership need to look like?**

A combination of leadership from the top (Trustees, senior management) and from students and teachers was seen as needed. Leadership needed to be both in words and in actions to be effective. Many interviewees noted that leadership needed to come from all areas of the organization, as each person has a unique contribution to make and should be supported in doing that. There was a recognition that the leadership of the principal, vice-principal and teachers in the schools that they work in was very important for students to directly see and experience. The VBE staff with specific sustainability responsibilities were also viewed as leaders by many.

13. **What can you contribute to the achievement of this goal? Do you feel empowered and able to fulfill that role? Why or why not?**

Most staff that were interviewed felt able and empowered to make more sustainable choices in their positions, even though it can be challenging, under-resourced, and slow-moving. Many people viewed their role as being largely about facilitation, supporting and guiding more sustainable practices, and being central places for communication about expectations and opportunities. Some people felt they could take their sustainability work farther, and more quickly, if there weren’t as many internal cultural barriers and if they were able to more fully bring their capabilities to their position.

### 3.2 Youth Engagement

Environmental Youth Alliance members engaged students at four schools on the topic of VBE and sustainability.

**Table 8: Schools engaged is the sustainability baseline work**

<table>
<thead>
<tr>
<th>School</th>
<th>Grades Engaged</th>
<th>Number of Students Engaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windermere Secondary</td>
<td>10 and 11 Leadership Program students</td>
<td>40</td>
</tr>
<tr>
<td>Dr. A. R. Lord Elementary</td>
<td>Grades 4 and 5</td>
<td>26</td>
</tr>
<tr>
<td>J.W. Sexsmith Elementary</td>
<td>Grades 5 and 7</td>
<td>50</td>
</tr>
<tr>
<td>Britannia Secondary - Streetfront Alternate</td>
<td>Grade 11 biology, Grade 8 applied skills</td>
<td>45</td>
</tr>
</tbody>
</table>

Students working in small groups were asked three central questions about sustainability in their schools and at the VBE:

1) What does your school already do to be more sustainable?
2) What would make your school the ‘greenest’ in the VBE?
3) What are the challenges to being more sustainable?

The most common themes of the responses to these questions are summarized here:
Question 1: What does your school already do to be more sustainable?
Most students indicated familiarity with waste reduction and recycling (e.g.: paper reuse, waste-free lunches), and composting. Many also citied growing and using food on school grounds. Some mentioned active and mass transportation (walking, biking, buses), energy and water conservation (motion sensor lights, behaviour, and student environmental clubs and activities.

Question 2: What would make your school the ‘greenest’ in the VBE?
Many responses focused on waste, with students wanting to see increased reuse, recycling and waste diversion (less paper, reusable water bottles, more composting). Other responses were energy related, with students wanting to see onsite renewable energy production (solar, wind), energy conservation and more energy efficient buildings. Transportation responses including wanting to see electric vehicle infrastructure and more biking. The outdoor environment was also a theme, with students wanting improved landscapes (trees, living walls, living roofs). More onsite food production (gardens, fruit trees, chickens, greenhouses, local food truck) and an outdoor classroom. Green cleaning products were mentioned, as well as decreased water use (rainwater harvesting, greywater reuse, low flow toilets) and alternate material buildings (strawbale). Some students felt that having a sustainability coordinator at each school and having more school environmental groups and incentives (awards) would make positive contributions.

Question 3: What are the challenges to being more sustainable?
Student responses to this question mirror those of the other interviews. Perceived challenges included lack of funding, lack of commitment and apathy, lack of education on sustainability issues, lack of feeling of responsibility and lack of will from the school administration. Perceived practical challenges included running sustainability programs during absence (summer), lack of organization, sustainable transportation behaviour being weather dependent, lack of technology and unsupportive communities. Other concerns included the observation that unsustainable behaviour is easier, there is a lack of respect for green spaces and the environment, poverty inhibits action, and there is resistance to change.

One of the school groups also discussed sustainability opportunities. Ideas included fundraising, sponsorship, champions, community connections, sharing information, rewarding sustainable behaviour and sustainability projects being fun.

The majority of the student engagement in the discussion indicates that there is passion for sustainability and sustainability-related projects at their schools. They are most familiar with sustainability aspects that are already present at their schools, like waste programs and gardening. Their understanding of what being the greenest school board is basic, mostly involving expansions of existing projects, with a few exceptions in the energy generation and water use realms. The students’ perception of challenges to achieving more sustainable schools is substantial, primarily involving lack of will, perceptions and lack of human resources. Their perceptions of opportunities primarily involve ‘people power’ with a positive focus on community empowerment.

Some students feel that there is a tension between what student groups want to see and what they expect will happen from a large bureaucracy like the VBE. They also noted that sustainability programs and projects need more institutional support for already burnt out teachers, who are generally championing and leading sustainability projects.
Section 4: Survey Summaries

An online survey was created for anyone related to the VBE with the aim of deducing familiarity with VBE sustainability policies and the importance of different VBE sustainability efforts in becoming the greenest school district. The survey had 94 respondents. The percentages depicted and quoted below are based on the number of respondents for each question. As answering a question was not mandatory, respondents could skip questions, which resulted in varying total respondents for each question.

4.1 Survey Demographics

50% of respondents were teachers, 15% were administrators and 24% identified as ‘other employees’. 57% of respondents were aged 45-65 while 30% were aged 30-45. Few students or parents completed the survey. Of those who chose to respond to “What gender are you”, 64% identified as female and 36% as male. 25% of total respondents skipped this question. Respondents were from all over the VBE, identifying with dozens of schools. No one school had more than 5 respondents.

![Figure 5: Survey demographics](image)

Responded 76 | Skipped: 18

Respondent Age

65+ 1% | 6-13 0% | 14-19 5% | 20-30 7% | 30-45 30% | 45-65 57%
4.2 Familiarity with VBE Sustainability Policies, Programs, Groups and Activities

People are most familiar with school project level sustainability and least familiar with facilities-side sustainability directives and specialized student programs.

**VBE Policy Familiarity**

Responded 78 | Skipped: 16

*Figure 6: VBE Policy Familiarity*
4.3 Effect of VBE Sustainability Activities on Lifestyle

Most respondents felt that questions about the effect of VBE sustainability initiatives on their and their children’s lifestyles were not applicable. 62% of respondents felt the initiatives had some or a positive effect on their attitudes and behaviours and 75% felt that they influenced their work practices or activities.

![Effects of VBE Sustainability Initiatives](image)

A  Changed my attitudes and behaviours  
B  Changed my child's/children's attitudes and behaviour  
C  Changed my family's attitudes and behaviour  
D  Positively influenced my child's/children's learning and achievement  
E  Influenced my decision-making about what school my child/children attend  
F  Influenced my work practices or activities

Responded: 73 | Skipped: 21

*Figure 7: Effects of VBE sustainability initiatives*

4.4 VBE Sustainability Pride

57 survey respondents identified initiatives they are proud of at VBE. The most popular sustainability initiative source of pride is waste reduction efforts: recycling, waste separation and composting. School gardens, and energy efficiency upgrades and appliances and going paperless/using less paper/purchasing recycled content paper were also popular choices. In the educational realm, some respondents chose use of outdoor education programming, individual teacher initiatives, and student-led sustainability initiatives as their preferred accomplishments. On the facilities side, some chose energy efficiency upgrades, sustainable new buildings, use of eco-friendly cleaning products, water bottle refill fountains, sustainable procurement, relationships with partners (Modo, BC Hydro, Fortis), EV outlets, and VBE sustainability staff. Biking to school programs, sustainability grants and chickens also got a few mentions.

Responded: 57 | Skipped: 37
4.5 Definition of a Green School Board
Respondents had several constructive suggestions for defining a “green school board”, including:

- Fostering behaviour change towards sustainable lifestyles
- Fostering a culture of sustainability
- Going waste free
- Using more sustainable transportation
- Focusing on education (sustainability, consumerism, behaviour, practices)
- Minimizing carbon footprint
- Supporting healthy schools and learning environments
- Minimizing resource use
- Coordinating a sustainability vision for all schools
- Increasing energy efficiency and decreasing fossil fuel use
- Installing more gardens and green roofs
- Making sustainability the heart of all decision making
- Comparing sustainability efforts to those of other school districts
- Minimizing carbon and ecological footprints

Responded: 54 | Skipped: 40

4.6 How Would You Know it if VBE Were the Greenest School Board in North America?
“I’m pretty sure you’d tell us.”

Respondents had a variety of ideas on how they might know that VBE had become the greenest school board in North America, including:

- By comparing VBE sustainability achievements to those of other school districts.
- By making measureable progress in sustainability efforts relating to waste reduction, composting, energy production, energy efficiency, water use reduction, active transportation, public transportation, food production, sustainable procurement, resource use reduction, and sustainable building construction and operations and maintenance.
- By having the sustainability vision and goals readily apparent everywhere in the district and having them integrated in programming across the school board.
- All students would do project-based inquiry learning and attending sustainability fairs in their school zones.
- All VBE staff would model sustainable behaviour.
- Via appropriate metrics and indicators.
- The language of sustainability would be common.
- VBE would be a sustainability case study for other school districts.
- Through news and media reports.
- You would be able to feel it – students and teachers would realize that sustainability is a part of learning, not an extension of it.

Responded: 56 | Skipped: 38
4.7 Greenest School District Focus

When asked where to focus its efforts in order for VBE to become North America’s greenest school district, most respondents felt that most areas were important or very important. The most pressing areas are energy efficiency, waste reduction and sustainability education.

![Where to Focus Chart]

A  Walking and cycling to school and work
B  Growing local, organic food on school grounds
C  Preparing and eating more healthy, local and organic food
D  Buying goods and services from environmentally and socially responsible organizations
E  Reducing energy consumption
F  Reducing greenhouse gas emissions
G  Providing sustainability education for all grades
H  Ensuring VBE is inclusive of diversity of students and staff
I  Taking public transit to work and school
J  Reducing waste production and increasing recycling and reuse
K  Involving all VBE stakeholders in sustainability projects and policy
L  Reducing water consumption of buildings
M  Increasing green space and biodiversity
N  Providing student work/volunteer opportunities on sustainability projects with the VBE or in the community
O  Providing opportunities for students to interact with wilderness
P  Ensuring sustainability responsibilities are included in all job descriptions
Q  Having a comprehensive sustainability policy in place
R  Comparing well against other schools in key sustainability measures
S  Reporting on progress toward VBE’s sustainability goals

Responded: 67 | Skipped: 27

*Figure 8: Where to focus in order to become the greenest school board in North America*
4.8 What is Most Important to Help VBE be More Sustainable?
Most respondents feel that all items important to very important, with fewer respondents feeling the need for support outside their school life when it comes to sustainability.

![Bar chart showing priorities for helping VBE be more sustainable]

Responded: 66 | Skipped: 28

*Figure 9: Priorities for helping VBE be more sustainable*
4.9 Other Comments
Thirty respondents left additional comments. Many were enthusiastic about their role in making sustainability contributions in the VBE and their school. Many recognized the challenge of becoming substantially more sustainable, stating that a cultural shift was needed or a serious, coordinated effort. Some urged rigorous consulting and engagement of VBE stakeholder groups. Others pointed out the strength in coordinating curriculum and school programming across an entire school, between multiple schools and across the entire district. Some respondents advocated a focus on actions and direction from the Board of Trustees and high level staff. Many expressed support for existing sustainability initiatives and appreciation for the VBE’s greenest school board initiative. Some respondents wanted to have VBE sustainability plans and progress tackling readily available. Still others expressed interest in sustainability curriculum and teaching sustainability courses.
Section 5: Conclusions

There are a variety of sustainability policies, practices and programs at VBE, initiated at every level. The efforts are largely uncoordinated but have support from those aware of them. There is currently no broad culture of sustainability at any level of the VBE. For the majority of those engaged in this study, there is little feeling that the VBE is currently coordinating sustainability policies.

For the majority of those engaged in the study, the level of understanding of sustainability seems to be average. Only a few people were able to articulate an advanced understanding of sustainability and what is required of VBE to meaningfully address its sustainability challenges such as GHG emissions, water and energy use, transportation challenges, and waste reduction. Although many were enthusiastic about more sustainability initiatives, few were able to express sustainability goals that would substantially put the VBE at the forefront of sustainability efforts among school districts.

VBE staff are generally aware of some sustainability policies that affect their work, but are generally unaware of any policies that do not do so. There is some feeling that certain policies are vague or are not always enforced or expected (e.g.: the LEED requirement for new buildings). The greatest awareness, enthusiasm for, and participation in sustainability efforts is at the school level, where student and teacher champions create and maintain a variety of initiatives.

There is a feeling from those engaged in the study that VBE’s approach to sustainability should be holistic, integrated, well-articulated, well-promoted and transparent. VBE must walk the talk. All stakeholders must be involved and must lead in the effort and, being an educational entity, education must be at the core of such an effort. Concern was expressed that the goal of becoming North America’s greenest school district seemed overly challenging in that resources are in short supply, especially dedicated funding. There is also a sense that resistance to change will be a major impediment to strong sustainability efforts.

There is little support for the idea that current VBE sustainability efforts have substantial effect on student and staff sustainable behaviours. There is, however, broad support for more sustainability policies, practices and projects, and all sustainability sectors are indicated as priorities for action.
Appendix B
Jurisdictional Review (Promising Practices)
March 11th, 2014

**Submitted to:**
Vancouver Board of Education

**Submitted by:**
Sustainability Solutions Group
Jeremy Murphy, Director
[jeremy@sustainabilitysolutions.ca](mailto:jeremy@sustainabilitysolutions.ca)
604 828 6660
A revolution in education is under way, and it is starting in the most unlikely places. The revolutionaries are not professional educators from famous universities; rather they are...students, a growing number of intrepid teachers, and a handful of facilitators from widely diverse backgrounds. The goal of the revolution is the reconnection of young people to their own habitats and communities. The classroom is the ecology of the surrounding community, not the confining four walls of the traditional school. And the pedagogy of the revolution is simply a process of organized engagement with living system and the lives of people who live by the grace of those systems.

— David Orr

Summary of Findings

- No single school district included in the study is clearly leading the way on all environmental sustainability issues.
- There are many initiatives that could be transferred from one jurisdiction to another.
- There would be considerable benefit from an inter-school board dialogue focused on sustainability.
- Taken together, these jurisdictions offer a comprehensive set of measures that can provide guidance on what the greenest school district should be achieving.

Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>2</td>
</tr>
<tr>
<td>Toronto District School Board</td>
<td>3</td>
</tr>
<tr>
<td>Delta School District</td>
<td>6</td>
</tr>
<tr>
<td>Abbotsford School District</td>
<td>9</td>
</tr>
<tr>
<td>Portland Public Schools</td>
<td>11</td>
</tr>
<tr>
<td>San Francisco Unified School District, Ca</td>
<td>14</td>
</tr>
<tr>
<td>Surrey School District (Sd No. 36)</td>
<td>19</td>
</tr>
<tr>
<td>Sweden</td>
<td>21</td>
</tr>
<tr>
<td>Australia</td>
<td>24</td>
</tr>
<tr>
<td>Conclusion</td>
<td>26</td>
</tr>
</tbody>
</table>
Introduction
The Vancouver Board of Education (VBE)’s Sustainability Framework (2010)’s vision is for the VBE to be the greenest, most sustainable school district in North America. As part of VBE’s effort in completing an Environmental Sustainability Audit to assess the Board’s activities and initiatives towards achieving this vision and to inform the development of a multi-year sustainability action plan, VBE is committed to understanding what other leading school districts in BC and North America are doing to pursue sustainability. This report highlights nine jurisdictions that are pushing boundaries with regards to embedding sustainability into their School District’s overall operations, curriculum and culture. These jurisdictions include:

- Toronto District School Board, ON
- Delta School District, BC
- Abbotsford School District, BC
- Portland Public Schools, OR
- San Francisco Unified School District, CA
- School District No. 38 (Richmond), BC
- Surrey School District No. 36, BC
- Australia
- Sweden

These jurisdictions are not necessarily the foremost examples of sustainability in their programming or practices. Rather, they are a sampling of relevant jurisdictions to VBE and were chosen as comparators and as examples of jurisdictions that are taking sustainability actions.

Research Analysis
This research involved interviews with eight individuals involved in advancing sustainability efforts at the District School Boards (including sustainability senior managers and energy specialists) using a semi-structured questionnaire, as well as completing a detailed literature review of journal articles and websites relating to education and sustainability. The interviews were open-ended conversations about each District’s innovation and successes, challenges, lessons learned and the cost and level of effort needed to replicate the model or accelerate the sustainability agenda forward.
TORONTO DISTRICT SCHOOL BOARD

Description
The Toronto District School Board developed a Sustainability Office three years ago that includes a Senior Management position in sustainability. The Sustainability Office created capacity and momentum for the District School Board to lead by example in a number of areas. The TDSB’s Environment Policy outlines the Board’s commitment to environmental literacy for all students and to environmentally responsible operations. EcoSchools is a school greening program with a very broad scope. It addresses what is taught, how the TDSB runs its schools and how they design and use their schools grounds. Its central focus is supporting students and staff in caring for and protecting the environment. EcoSchools helps to implement the TDSB’s Go Green: Climate Change Action Plan and the Ontario Ministry of Education’s Acting Today, Shaping Tomorrow. In order to help teachers fulfill the policy’s curriculum expectations, EcoSchools section 4—“Improve Student Achievement through Ecological Literacy” helps to better equip teachers to include an environmental perspective as part of lesson planning. The TDSB Board has funded EcoSchools since 2003, years ahead of any other school board or the Province. TDSB’s Go Green: Climate Change Action Plan actions are organized into three categories: Planning for the Long Term, Quick-Starts, and Organizational Change and includes developing strategic plans to quantify and reduce all building and non-building-related GHG emissions by at least 20% by 2020. The TDSB has also created an Urban Forest Management Plan that includes addressing five key issues:

- More trees needed in active play and gathering areas
- Disparity among schools in the number of trees and access to shade
- Current lack of biodiversity in the urban forest
- High rates of damage among existing trees
- Rising temperatures

![Eastdale Collegiate Institute rooftop garden](Image)

Eastdale Collegiate Institute rooftop garden Photo: Courtesy of TDSB

Innovation
The TDSB has an Environmental Legacy Fund that was approved in 2010 as part of the TDSB’s Go Green: Climate Change Action Plan. The fund has a few different sources of revenue including income from the sale of carbon credit\(^1\) and revenue from the sale of solar generated electricity (the TDSB currently has 12 schools generating solar power to the electrical grid and selling it to the Ontario Power Authority). The generation of solar power generates $180,000 a year and is under a 20 year contract. In 2013, the Board approved a terms of reference for the use of the fund, identifying key priority areas including teacher development for ecological literacy and pilot projects. The

---

\(^1\) The TDSB has been successful in reducing GHG emissions from buildings (this is extremely well documented) and has packaged these reductions and sold them on the voluntary carbon market in Canada. This has generated approximately $2 million in revenue; these funds go directly into the Environmental Legacy Fund.
TDSB in currently putting effort in growing revenue for the fund as it is recognized as being a key systematic leverage point for fueling innovation. The TDSB created the eco schools program in Ontario 10 years ago; over the last ten years it has grown in terms of the size, requirements, and difficulty. It is a certification program; schools need to apply to be certified and the certification lasts for one year (schools are audited and can achieve bronze, silver, gold or platinum). The certification guide includes 5 different areas:

- Foster Leadership and Teamwork
- Reduce Impact on the Environment
- Care for and Create Vibrant Schools Grounds
- Improve Student Achievement through Ecological Literacy
- Contribute to Healthy, Safe, and Caring School Communities

The program is now run by Ontario Eco Schools. Ontario Eco Schools and TDSB maintain a close relationship; the TDSB completes its own certification and auditing (it has certified 400 out of 580 schools in the TDSB and more than half of the schools have achieved gold or platinum).

The TDSB’s longest standing partnership is with Evergreen (this has been a formal partnership over the last 14 years). The partnership is currently working on greening school grounds and has funded four positions, evergreen associates, who are full time evergreen staff with a background in landscape architecture that work in the office at the TDSB. The team is highly integrated and highly collaborative and works on school ground greening. The partnership also supports one full-time employee to support the platinum auditing process as it is a very rigorous process (currently one third of the high gold certified school do not make platinum certification). The TDSB has several partnerships with government and NGOs as well as partnerships with different parts of the City. There is a strong relationship with the City Parks Department who give the TDSB large trees. The TDSB is currently planting 420 trees in 42 different schools a year.

The TDSB has also been focusing on developing market gardens and integrating the gardens with curriculum and programs within the schools. Eastdale Collegiate Institute has established a beautiful rooftop garden growing large amounts of food. There is now a green projects team leader being funded by the Environmental Legacy Fund, this is a new position similar to a construction supervisor focusing on green projects in schools.

**Lessons Learned**

The TDSB has been advancing its sustainability efforts over the last fifteen 15 years and the changes have come gradually over long periods of time. The TDSB recognizes the need to be strategic and the importance of selecting opportunities as they present themselves while helping to solve Board pressing issues (i.e. looking at broader problems, and strategically finding ways to solve these problems while moving the sustainability agenda forward).

The Sustainability Office was producing an annual sustainability report, however they have not been doing this over the last few years due to the amount of resources needed. There is also a general feeling of uncertainty around the overall investment due to reports commonly getting buried. The biggest outcome of the Climate Change Action Plan was the creation of the Environmental Legacy Fund (most of the other goals in the plan have not been achieved to date). However the Urban Forest Management Plan has been much more successful and includes many quickstarts helping to build momentum and setting a path for the long-term. The TDSB recognizes that their goals, objectives and actions need to ambitious yet realistic and achievable and there needs to be a focus on prioritized actions that need commitment and will drive the change over time.
Although, the Sustainability Office is based in the Facility Services department, the office has made efforts to establish an interdepartmental team. The team includes teachers, technical staff including an engineer and a landscape designer in an effort to establish a team that crosses the traditional departmental silos.

**Level of Effort**
The Sustainability Office has been significant for the TDSB in accelerating the sustainability agenda forward. It has been critical to have someone in a senior management position in sustainability. Now with the office, there is a clear structure and it is in the organizational chart. The Office of Sustainability has its own budget that is highlighted in the Board’s budget and consequently the office is less vulnerable to budget cuts and changes. The Sustainability Office currently has a team of 15 staff.

**Relevance to Vancouver Board of Education**
The establishment of eco schools, a Sustainability Office and the Environmental Legacy Fund are all innovative initiatives that could potentially be replicated in other School Boards. Toronto’s partnership with the City’s Parks Departments also demonstrates a novel partnership between the School Board and the City.

**Contact**
Richard Christie - Senior Manager, Sustainability
Sustainability Office, Facility Services
Toronto District School Board
15 Oakburn Crescent, Toronto, Ontario M2N 2T5
T: 416-395-4612

**References**
Toronto District School Board. Available at: [http://www.tdsb.on.ca/](http://www.tdsb.on.ca/)


Toronto District School Board, EcoSchools. Available at: [http://www.tdsb.on.ca/AboutUs/Innovation/EcoSchools.aspx](http://www.tdsb.on.ca/AboutUs/Innovation/EcoSchools.aspx)


Toronto District School Board. Policy Number B. 05, Environment. Available at: [http://www.tdsb.on.ca/Portals/0/AboutUs/Innovation/docs/environment%20policy.pdf](http://www.tdsb.on.ca/Portals/0/AboutUs/Innovation/docs/environment%20policy.pdf)

DELTA SCHOOL DISTRICT

Description
The Delta School District has taken a proactive role in environmental stewardship for many years. Facilities have been constructed, renovated and retrofitted, schools and other District sites have undertaken paper recycling programs and other waste reduction measures, custodial practices have changed to reduce packaging and incorporate more environmentally friendly cleaning products. However, the District recognizes the need to do far more in the areas of climate action, conservation of non-renewable resources, water and the environment, and contribution to sustainable region principles established by Metro Vancouver. DeltaGreen is the strategy the Delta School District has initiated to help move the District’s sustainability agenda forward.

The District has implemented a Sustainability Policy #4510. The District recognizes that the success of its implementation relies on the joint effort and cooperation of the Board, District Administration, Principals, teachers, students, community and educational partners. The Board has outlined the following priorities:

Conservation: conserving electricity, fossil fuels and water through an energy management program designed to optimize energy use, reduce energy consumption and source-out alternative renewable energy sources.

Protection: adopting practices that protect the environment including substitution or elimination of the use of toxic and harmful substances, increased use of recycled and recyclable products, reduction in packaging and solid waste generation, and increased diversion of recyclable materials out of waste streams.

Education: developing student and staff awareness of and commitment to the concept of sustainability by establishing a leadership role in environmental stewardship, seeking to promote responsible attitudes, and fostering a holistic approach to climate change, energy utilization and waste reduction.

Regulation: meeting or exceeding requirements for public sector agencies set forth in Provincial climate action, energy conservation and other pertinent legislation, policy or regulations.

Innovation
The Delta School District is in the process of developing a District Sustainability Committee. The Committee has a mandate of developing, implementing and assessing a short and long-term sustainability plan for the District in accordance with the District’s Sustainability Policy (areas of consideration include energy conservation, carbon footprint reduction, waste reduction and recycling, exploration of alternate energy sources, education and programs and water conservation). Members of this committee will include students, teaching staff, school support staff, elementary school administrators, secondary school administrators, District administration, Educational Programs Branch and Facilities Branch. The committee reports to and is accountable to the District Senior Management Team.

The DeltaGreen Advisory Committee is a broader group of interested stakeholders (students, teaching and support staff, administrators and District level staff) that supports leadership and initiatives in environmental stewardship at the school level. This group is an advisory committee to the District Sustainability Committee.

Each school is also encouraged to set up a "Green Team", which consists of students, teachers, support staff, administrators, parents and others. It can be run by students themselves, and can involve coordinating many greening activities (recycling, energy and water conservation, reduction in waste and paper consumption,
composting, etc.), as well as making recommendations to the DeltaGreen Advisory Committee, and facilitating communication and actions by the whole school community.

The Facilities Branch works closely with BC Hydro PowerSmart, FortisBC, Government of British Columbia Climate Action Secretariat and other agencies to undertake initiatives to reduce energy (electric, fossil fuel, water) consumption and greenhouse gas emissions (GHG) in their buildings including:

- Auditing of utility consumption, setting performance targets and studying potential projects for reductions;
- Enhanced recycling programs at schools and other District facilities to reduce the amount of recyclable items (i.e. paper, cardboard, metals, plastics, glass, drink containers) entering the waste stream and divert them to proper handling locations;
- Continued upgrading of controls for water, heating, lighting, demand ventilation in gyms and other building automation;
- Fleet management plan to replace antiquated vehicles and grounds equipment with new, fuel efficient, eco-friendly, size-specific equipment;
- Continued greening of our cleaning processes to reduce packaging and waste, and reduce chemicals harmful to the environment;
- Auditing and awareness campaign to reduce the amount of waste entering landfills; and
- Continued implementation of the Rooftop Heating Units (RTU) Replacement Program, replacing close to 400 antiquated, inefficient gas-fired units with new, 350% efficient electric heat pumps.

The Delta School District is also focusing on inspiring behavioral change through educational programs and campaigns. The District works with educators and curriculum specialists to develop engaging and relevant resources that provide information for students and staff on energy efficiency, energy alternatives, electrical safety, composting, commuting challenges for staff, etc.

**Energy Monitoring Dashboards**

The Delta School District has recently completed the installation of touchscreens and programming of the energy monitoring dashboards at all District sites.

**Igniting A Spark**

Igniting A Spark is an environmental symposium run by students, for students, to inspire a movement for sustainable change in BC. This conference is open to all students in the Lower Mainland.

**Sustainability Grants**

Sustainability Grants are available to schools to help support the diversity of sustainability initiatives focused on energy conservation to help reduce the school’s utility bills. Each school can earn up to $1,000 and a number of schools in the Delta School District have been successful in previous years in reducing their carbon footprint.

**Lessons Learned**

The Delta School District has experienced barriers around competition for funding for projects (as there are so many departments including the arts and sports that are all competing for funds). The District has also experienced issues around the cost of technology for retrofits - for example solar panels continue to be costly and Vancouver does not get that much sun. Support towards moving the sustainability agenda forward comes from higher up (the District acknowledges that there needs to be this buy-in from higher up in order to move the agenda forward). The Delta School District has completed a lot of the low hanging fruit and hardwire projects, however, recognizes that there needs to be more attention and support directed to making significant steps forward on inspiring behavioral change within the School District.
Level of Effort
The Delta School District currently has an Energy Manager (funded by BC hydro), an Energy Specialist position (funded by FortisBC), and Facilities Directors that receive support from Executive Staff. The Principals and teachers have been focusing time and energy on encouraging students to get involved in their schools in activities and campaigns around sustainability initiatives such as conservation awareness. The District recognizes that there needs to be more effort directed to supporting teachers as well as developing sustainability curriculum and supporting after school activities. Building this momentum is taking enormous amount of volunteer time and many teachers have multiple activities that they are involved in. The Sustainability Committee is also 100% volunteer driven.

Relevance to Vancouver Board of Education
The installation of touchscreens and programming of energy monitoring dashboards helps to build awareness around energy conservation. Establishing Green Teams that work on coordinating sustainability activities and making recommendations to the Sustainability Advisory Committee has proven to stimulate community engagement and a dialogue around embedding sustainability into the operations, curriculum and culture of schools.

Contact
Debra Eng, P.Eng., LEED AP BD+C
Energy Manager, Facilities
Delta School District, SD#37
O: 604-946-5088 ext. 5235

References
BC Hydro For Generations, Youth & Education. Available at: http://www.bchydro.com/community/youth_education.html
Delta School District, Facilities Branch, Delta Green. Available at: http://facilities.deltasd.bc.ca/deltagreen
Delta School District, Facilities Branch, District Framework. Available at: http://facilities.deltasd.bc.ca/green_framework
Delta School District, Facilities Branch, Green Initiatives. Available at: http://facilities.deltasd.bc.ca/green_initiatives
Delta School District. Igniting a Spark, Youth Environmental Symposium. Available at: http://greensymposium.drupalgardens.com/
Delta School District Policy #4510 Sustainability. Available at: http://facilities.deltasd.bc.ca/sites/default/files/Policy4510_Sustainability_%2804Nov08%29.pdf
Delta School District. Real Time Energy Monitoring and Touchscreen Dashboards. Available at: http://facilities.deltasd.bc.ca/node/711
ABBOTSFORD SCHOOL DISTRICT

Description
The Abbotsford School District (Abbotsford SD) is made up of 46 schools; the District is actively working to be a leader in the Province as well as nationally in environmental awareness and sustainable practices. Abbotsford’s Board of Education signed the province’s Climate Action Charter. The Board will be reimbursed based on the actual costs of the carbon tax, derived from measurement and reporting of the District’s fuel purchases. The Charter acknowledges that Boards of Education have taken action on climate change by encouraging educational programming on climate change and by implementing innovative infrastructure technologies.

The Abbotsford School District has implemented an Energy, Environment and Climate Change Policy (No. 5.140). The purpose of this policy is to ensure that significant effort is made to conserve energy and natural resources within the school district. The Board of Education also has had an Environmental Conservation Policy (#5.70) for the last 15 years. The Policy is intended to stimulate awareness and initiatives to help protect the environment and conserve non-renewable resources. Initiatives include school libraries having educational material relating to recycling and preservation of the environment; school administrators encouraging student environmental awareness programs and increased efforts around sustainable purchasing. The Board of Education also approved a comprehensive recycling program for the District, and made recycling mandatory at all sites.

Innovation
The Abbotsford School District has been actively involved in energy management since the late 1990’s, and has 0 in-school programs and initiatives include:

**Turn it off stickers:** Encouraging students and staff to turn off lights and computers in classrooms/labs, when not in use.

**The Carbonator Project:** The school district launched this tree planting project in 2009.

**District’s Energy Dashboard:** The dashboard displays in real-time the amount of electricity, natural gas and water Abbotsford Middle School and Abbotsford Senior Secondary School are consuming and how much electricity and thermal energy they are producing from renewable energy sources. This Energy Dashboard is a pilot program covering two of the central schools. The District hopes to expand the dashboard to include data from all of their schools, allowing students from across the district to be able to see the direct impact they can have on the environment through energy and water conservation projects at their schools. The bottom left box on the energy dashboard also leads to a “green features” section, which describes the main green features that are incorporated into Abbotsford Senior Secondary School and Abbotsford Middle School.

**School Energy Committees:** All schools in the district are encouraged to form “Energy Committees” comprising of a school administrator or teacher and students. These committees are directly involved in day to day monitoring of lighting and computer shut downs, as well as education of peer groups around reducing energy consumption and promoting environmental stewardship. Also, ‘Green Teams’ made up of staff and students have been formed to monitor Hydro meters once a month at their schools.

**District Innovation Centre:** Abbotsford School District has set aside two rooms at the new Abbotsford Senior Secondary School for the creation of the Explo-Zone and the Pumphouse which together form the District Innovation Center. The center will be a place where teachers and students can come and experience the BC
Education plan’s new 21st Century teaching format through hands-on activity based learning. One of the foci of this center is to use the school as a teaching tool by showcasing the renewable energy technologies and green building practices incorporated into the campus. This will help to connect Science Technology Engineering and Math (STEM) curriculum to sustainability. The district’s real-time energy dashboard will also be a resource classes at this center can use to provide students will local, applicable, information about the energy their school is consuming and producing throughout the year.

Lessons Learned
Embedding sustainability into the overall operations, curriculum and culture of the Abbotsford School District has been a relatively slow process as it took time to get traction and build momentum. This has been especially the case for energy savings due to the long paybacks. However the funds that are saved is funded back to an energy savings program; some of these funds are put back into curriculum development, other funds are given back to schools to buy materials and supplies or invest further into capital for energy savings projects. This has proven to be an innovative funding mechanism to help advance sustainability at the District.

Level of Effort
Funding from BC Hydro for the Energy Manager position as well as funding from FortisBC for the Energy Specialist position has helped the Abbotsford School District advance energy management at the District. BC Hydro has now cut the Energy Manager position, however the District recognizes the importance and has kept the position to continue to build momentum in energy management. The dialogue in sustainability is critical at the District, staff report to the Director of Facilities & Transportation who then reports to senior management to get buy-in. The sustainability committee is critical to this dialogue and helping to advance the overall sustainability agenda.

Relevance to Vancouver Board of Education
The energy dashboard, the Carbonator Project and the Innovation Centre are mechanism to help advance sustainability, building awareness in energy conservation, further greening school grounds and fostering a powerful hub to help embed sustainability into the curriculum.

Contact
Tom Louie, P.Eng., FEC
Director of Facilities & Transportation
Abbotsford School District
T: 604-852-9494, ext.2320
tom_louie@sd34.bc.ca

References
Abbotsford School District, Enteliweb Visualization. Available at: http://tinyurl.com/AbbySD-Energy
Abbotsford School District, Facilities Department. Available at:
http://facilities.sd34.bc.ca/departments/sustainability-utilities/environment
PORTLAND PUBLIC SCHOOLS

Description
Portland Public Schools (PPS) has been actively working on a diversity of energy water efficiency projects. The Oregon Department of Energy’s Senate Bill 1149 (SB 1149) Energy Program distributes funds to the District to improve efficiency through energy reduction and conservation capital projects. PPS has used this funding to perform comprehensive energy audits on all of their facilities, and continues to implement the projects identified by the audits.

Since December 2010, the District has completed more than 150 energy projects at an approximate total cost of $2,966,019, with an estimated annual energy savings of $384,324. In total, more than 380 energy efficiency projects have been completed throughout the life of the SB1149 program.

Recent Projects Include:

- Full Building Energy Assessment at Six Schools
- LED Exterior Lighting
- High Efficiency Water Heaters
- Replacement of Metal Halide and Mercury Vapor Lighting
- Steam Trap Replacement and Repair
- Building Control Upgrades
- Lighting Occupancy Sensors
- T12 to T8 Lighting Upgrades
- Boiler burner project - converted all schools from heavy fuel to natural gas (35-40% carbon savings)

As part of the US Department of Energy’s Better Building Challenge, PPS has set a goal to reduce district-wide energy use by 20% by 2020. As part of the challenge, PPS has demonstration projects that serve as an opportunity to highlight specific projects to share strategies and demonstrate significant energy savings.

The Electricity Conservation Incentive Program (ECIP) was designed to encourage students to become aware of and through effective behavioral changes reduce the overall electricity consumption in their schools. From September 2011 through April 2012, the 51 participating schools were able to reduce their energy consumption by 464,679 kWh compared to the previous year. This translated to $30,000 in savings for the district, and schools that reduced electricity use from the previous year received 30% of the savings.

In March 2011, a 2.5KW wind turbine was installed at Skyline Elementary School. The turbine is expected to generate enough power for two classrooms, about 3% of the school’s total use. The project was funded by the Bonneville Environmental Foundation. In the Summer 2009, PPS completed the first large-scale solar project undertaken by a public school district in Oregon. Nineteen percent of the total combined electrical consumption of these buildings was produced through their solar resource.

Innovation
PPS is currently working on many stormwater and garden initiatives. There are currently sixty food gardens in the district. PPS is collaborating with the Nutrition Services Department, to plan what food to grow in the gardens so that the food can be used for the school cafeterias, helping kids make the connection between planting seeds and actually eating the food they grow. PPS has put together a cookbook created by 25 different schools and has
distributed the book to the schools to serve as a fundraising initiative - all proceeds from the fundraiser go to the Garden Fund. This has served as a great way to tell the story of gardens and is full of student art and recipes. It has also been successful at connecting the kids to local food and kids have been translating this message to their parents.

Portland has a strong need to manage stormwater on site; it is a civic responsibility to manage stormwater and there is an opportunity to save money on stormwater bills (PPS is currently spending a million dollars a year on their stormwater bill). PPS has multiple stormwater projects that include bioswales, infiltration areas, and downspout disconnects (feeding water into bioswales or infiltration areas). The benefits of these projects include slowing down the water that eventually makes its way into the municipal pipes as well as helping to clean the water before it enters the pipes. The projects are beautiful and bring vitality to the urban landscape; one project was even honored an American Institute of Landscape Architects Award. These demonstration projects serve as an educational tool, bringing awareness around stormwater issues to kids and the greater community. They also have been generating savings of approximately $85,000-$87,000 a year for PPS.

PPS is also working on separating their organic waste stream in school cafeterias (as the City of Portland has a composting program in place). Approximately 20 schools are currently composting.

PPS also has a Sustainability Speaker Series, the series invites world-class speakers to talk about sustainability and how it relates to Portland Public Schools. This series helps employees, partners and community members understand the concepts and language around sustainability as PPS is currently beginning to develop a district-wide sustainability plan. PPS has a network of green school coordinators (the network includes internal champions such as teachers, parents and admin) that come together and are working on developing the sustainability plan.

The Bureau of Environment and Sustainability’s Americorps volunteer has been doing significant outreach including going into schools to discuss sustainability themes such as waste audits, composting and energy conservation with the students. Students learn about energy, where it comes from, why it is important to conserve it, and can join a student group called power pals. Power pals check rooms when they are empty and leave a note either saying great work, or they will leave a reminder note.

**Lessons Learned**

A large part of PPS’ success in advancing their sustainability agenda is related to having strong support from the Board and the Superintendent. The Bureau of Environment and Sustainability has learned to strategize and work through specific details of their plans and initiatives (before getting approval to move forward), so that when the door opens they are ready to implement. The Bureau is intentionally starting a conversation on social equity and environmental justice and is beginning to give presentations in classrooms to stimulate this dialogue.²

The United Nations University Institute for Advanced Studies of Sustainability has acknowledged greater Portland as a Regional Center of Expertise (RCE) on education for sustainable development (ESD). Joining 127 RCEs around the world, RCE Greater Portland is a growing network of regional educators, students, leaders, and community members collaborating to promote the advancement of sustainability education throughout the Portland Metro region. PPS is working on putting together a youth network, cultivating mentoring by bringing together College and K-12 students.

² One recent successful workshop used music and powerful lyrics to stimulate a dialogue with students on social equity and environmental justice.
Level of Effort
The Bureau of Environment and Sustainability currently operates on little budget yet has been able to achieve incredible momentum and success in implementing a range of cutting edge sustainability initiatives (not to mention saving the district close to $8 million in savings generated through projects). The Bureau recognizes the importance of having an internal champion, as well as leadership that will support the champion to implement various initiatives (support from the top is critical). With 87 schools (45,000 students), PPS has been able to bridge departmental silos through their green network, while forming relationships with different departments. PPS has strong partnerships with businesses, NGOs and foundations including the Bonneville Environmental Foundation which has to date given them 8 solar installations and kiosks that display the power generated.

Relevance to Vancouver Board of Education
Portland Public Schools’ stormwater initiatives, community garden projects, cookbook fundraiser initiative and mentoring program all are innovative projects that could be replicated at other School Boards.

Contact
Nancy Bond
Resource Conservation Specialist
Bureau of Environment and Sustainability
nbond@pps.net
T: 503.916.6383

References
Bonneville Environmental Foundation. Available at: http://www.b-e-f.org

Oregon Department of Energy. Energy Efficiency Schools Program. Available at:
http://www.oregon.gov/energy/SCHOOLS/Pages/index.aspx

Portland Public Schools. Behavioral Conservation. Available at:
http://www.pps.k12.or.us/departments/facilities/3244.htm

Portland Public Schools. Energy Efficiency Projects. Available at:
http://www.pps.k12.or.us/departments/facilities/3273.htm

Portland Public Schools. Sustainability News and Highlights. Available at:
http://www.pps.k12.or.us/departments/facilities/2749.htm

Portland Public Schools. Sustainability Speakers Series. Available at:
http://www.pps.k12.or.us/departments/facilities/6730.htm

Solar 4 R Schools. Schools and Projects. Available at: http://www.solar4rschools.org/schools/skyline-school

United Nations University, Regional Centres of Expertise. Available at:

U.S. Department of Energy. Better Buildings Challenge. Available at:
SAN FRANCISCO UNIFIED SCHOOL DISTRICT, CA

Description
San Francisco Unified School District (SFUSD) aims to graduate ecoliterate students while supporting the sustainable operation of its school buildings. To accomplish these goals, two positions were created:

- Director of Sustainability: Empowering school sites with the knowledge to reduce their energy and water use, minimize car trips, and divert at least 85% of their waste.
- Ecoliteracy Content Specialist: Creating and supporting the implementation of an ecoliteracy education framework that can be incorporated across the standard-based curriculum.

SFUSD’s ecoliteracy and sustainability efforts benefit from participation in the San Francisco Science, Stewardship, Sustainability (4S) collaborative. The 4S is a cross-organizational partnership between SFUSD and informal science and environmental education organizations that support district work and each other. THE SFUSD Green the Next Gen website has a comprehensive list of resources for student and teacher programs including offering unique curriculums, energy toolkits, teacher training programs, student programs, and best practices. There are also resources for how to green a school and past data on energy use, waste diversion and transportation methods.

SFUSD is committed to renovate and improve the environmental conditions of all its schools as stated in its Resolution No. 38-26A7: In Support of the Collaborative for High Performance Schools (CHPS) Criteria for Designing, Building and Operating Facilities that will Improve the Learning Environment While Saving Energy, Resources and Money. Resolution No. 910-27A1: In Support of Sustainability in the San Francisco Unified School District outlines SFUSD’s commitment to develop policies, practices, and curricula that promote health, sustainability, and fiscal discipline through a long-term process that integrates the following strategies in stages:

- Building
- Procurement
- Transportation
- Schoolyards
- Food
- Waste
- Education
- Green Teams
- Green Schools Advisory Committee

Innovation
SFUSD currently includes 100 schools, almost all of which have successfully integrated composting. The District has installed water bottle filling stations in an effort to reduce bottled water consumption. SFUSD currently has a 62% waste diversion rate for all the sites (the City of Portland currently has an 82% waste diversion rate, the highest of any major city in the United States). Resolution No. 311-18A5: In Support of Board of Education Commitment for Achieving Maximum Resource Conservation and Waste Diversion in the San Francisco Unified School District outlines the San Francisco Board of Education landfill diversion goals of achieving 75% by 2015 and 85% by 2025.
SFUSD is committed to greening their school yards by turning asphalt play yards into green school yards (SFUSD is focused on developing school gardens and drought tolerant areas). There is a dedicated staff person focusing on delivering outdoor education with students, supporting the programmatic side of SFUSD’s green school yard infrastructure. SFUSD is also initiating rainwater harvesting projects throughout the schools and a few sites have farms that are focused on producing quantities of food.

SFUSD has developed an Environmental Science Centre, a place for kids to observe and learn about local parks and visit the ocean (80% of kids that visit the Environmental Science Centre have never been to the ocean even though they live in San Francisco). SFUSD also has an ecological content specialist offering professional development for teachers to provide environmental education as part of their curriculum. SFUSD is currently working on curriculum standards alignment, determining what sustainability concepts to be taught to which grades.

**Lessons Learned**
SFUSD is committed to using data to drive program development. SFUSD now completes an annual commute survey and analyses collision data near schools to inform their capital projects (SFUSD has established a goal to be 75% Car Free by 2020).

**Level of Effort**
SFUSD has a strong partnership with the City of San Francisco. The Director of Sustainability position is currently funded by the City. The City also funds many innovative projects including composting initiatives and solar projects. Fifty percent of all utility savings goes back to the schools to invest in innovative sustainability initiatives.

**Relevance to Vancouver Board of Education**
Outlining sustainability goals including waste diversion and transportation goals provides valuable direction for helping to advance sustainability. Creating an Environmental Science Centre can give opportunity to kids of all income levels to explore and access nature.

**Contact**
Nik Kaestner
Director of Sustainability
SF Unified School District
415 241 4327

**References**
SFUSD Green the Next Gen. Available at: [http://greenthenuxtgen.org/programs/greening-your-school/](http://greenthenuxtgen.org/programs/greening-your-school/)


SCHOOL DISTRICT No. 38 (Richmond)

Description
School District No. 38 has had an environmental stewardship policy since 1998. The policy is a philosophy statement around what the board believes in with regards to environmental stewardship. The District has also outlined regulations and guidelines that are divided into 8 key areas of focus:

Curriculum Development: including embedding sustainability across the school board, cultivating ecological literacy.

Energy Conservation: including developing and executing a strategic energy management plan with targets, developing and maintaining a Green Fund.

Grounds Greening: including development of school gardens, outdoor learning spaces, natural play areas, integration of green space projects to curriculum learning outcomes.

Leadership: including building capacity, growing the next generation of environmental leaders, Green Teams, continuous learning.

Sustainable Purchasing: including construction materials, reducing total purchasing, evaluating lifecycle cost, setting sustainable purchasing standards, packaging.

Sustainable Transportation: including fleet vehicles, school buses, supporting sustainable transportation options for staff and students get to their place of learning.

Waste Management: including implementing organics policy across all schools in the district (they are currently 52 sites on board), long-term goal of moving to zero waste.

Water Conservation: including creating a 5-year action plan for water conservation, installation of rain water collection systems, installation of water meters on all sites.

School District No. 38 has developed a long-term vision (2050 vision) that includes ambitious short-term and long-term goals for each of the 8 key areas of focus to help embed sustainability across the district. The District is currently building a dashboard, this a scorecard with metrics for the 8 areas of focus outlined in the guidelines.

The District has had great success in energy conservation initiatives through their energy services contracts. In 2001, the school district entered a contract to reduce energy costs. By investing $5.4 million in lighting, mechanical system and HVAC controls upgrades, the contract guaranteed that the district would save $616,507 per year for ten years; in five years the district has exceeded this and saved an average $753,763 per year.

The total savings to date has been $4,413,450 or 143% of the original projected savings. At the current rate the district will have recouped the initial investment in 3-4 years early than expected.

School District No. 38 has also established Green Teams that consist of a representation of a number of stakeholder groups including admin, janitors, teachers and parents and is aiming to have Green teams for 100% of all the District’s sites.

Innovation
School District No. 38 has a Green Ambassadors Group, this group is at the district level and is not tied to a particular school. High school students have the opportunity to volunteer in different city initiatives; the Green
Ambassadors Group is a win/win collaboration as students require fulfilling volunteer hours and the City benefits from groups of volunteers for different initiatives. Volunteer initiatives include assisting people in sorting waste and promoting recycling at City of Richmond events to volunteering for shoreline cleanups.

School District No. 38 has also partnered with the David Suzuki Foundation for the last 3 years. The Richmond Earth Day Youth Summit (REDY) is a student led summit designed to connect and inspire individuals to take action. This year David Suzuki will be the keynote speaker.

School District No. 38 offers District Sustainability Grants to schools; $25,000 a year is allocated towards schools. Schools can apply for a grant of up to $1,000 a year for different sustainability initiatives that fall under one of the 8 areas of focus outlined in the District’s guidelines. Each year there is a green gala that showcases the awarded projects.

School District No. 38 also has a Green Fund, whereby energy savings are reinvested into the green fund to then be invested in other energy conservation projects. If approved, funds can also be invested in other sustainability initiatives (beyond energy conservation).

**Lesson Learned**
School District No. 38 has made substantial effort to ensure that sustainability is integrated within operations and education; ensuring that what is taught in the classrooms is reflected in how the School District operates.

The biggest barriers for the District has been around time constraints, as staff, teachers and admin are spread very thin. Maintaining sustainability initiatives can also be a challenge as teachers move from school to school and students graduate. The District has learned the need to implement structures from the beginning in order to make sure initiatives have continuity.

**Level of Effort**
School District No. 38 has several different structures that support sustainability initiatives. The Richmond Sustainability Action Team (RSAT) is a body that oversees sustainability in the District. The RSAT team has evolved and now has representatives from executives and is chaired by the Manager of Energy & Sustainability. RSAT has implementation committees; each subcommittee looks after different portfolios and has representation from students, support staff, teachers, admin, and management. This allows anyone interested the opportunity to engage in sustainability efforts and helps to identify key barriers while offering support to innovate.

School District No. 38 has a teacher consultant for sustainability; this is a centralized district role and offers individual support to teachers across the district on teaching sustainability in the classroom. This position also coordinates and facilitates other sustainability related groups, and monthly eco-wise cafe that brings together Green Teams across the schools to look at a sustainability topic each month while also sharing best practices across the district. This position also chairs the curriculum focus areas of RSAT. This role has helped to foster collaboration on both the education and operations side at the district level.

The manager of Energy and Sustainability is funded 50% by BC Hydro and 50% by the District. The Energy Specialist position is funded by FortisBC.
Relevance to Vancouver Board of Education
Establishing a long-term vision outlining specific areas of focus with short-term and long-term goals, objectives, actions and targets is a mechanism to help advance a school district’s sustainability agenda forward.

Contact
Tracy Blagdon, MBA, CMC, LEED Green Associate
Manager, Energy & Sustainability
School District No. 38 (Richmond)
604.295.7997
www.sd38.bc.ca

References

Richmond School District 38. Energy Savings Initiatives. Available at: http://www2.sd38.bc.ca/sdweb/envstew/energysaving


SURREY SCHOOL DISTRICT (SD No. 36)

Description
In 2010, Surrey School District (SD36) has demonstrated a strong interest in sustainability by creating the Director of Energy Management and Sustainability position to address sustainability and energy matters as they relate to the district. In 2012, SD36 created an Energy Specialist position to promote and oversee the implementation of gas energy savings projects and behavioral campaigns. Surrey School District’s Energy Management and Sustainability Department has its own budget; these funds are used to promote behavioral campaigns, implement energy saving retrofits and promote sustainability within the district. Two committees have been created:

- The executive committee - forming what is commonly known in energy management as a steering committee
- Building Management Services, Facilities - forming what is commonly known in energy management as a technical committee

The School District No. 36’s Policy: Mission Statement and Guiding Principles No. 1050 outlines its commitment to district environmental stewardship.

The district has been very successful in reducing their computer’s related energy waste by implementing a comprehensive computer management software across all of its buildings. In 1-2 years, this initiative has resulted in more than 4,000,000 Kwh of electrical savings. The district is also very rigorous in replacing aging boilers with high efficiency condensing boilers and replacing old incandescent lighting systems across the schools. In the past 3 years, approximately 20 sites have seen their boilers replaced; about 10 sites have had lighting retrofits completed. The district continuously upgrades their buildings Direct Digital Control (DDC) systems to the latest standards ensuring energy saving features are included (this year nine sites benefited from this initiative). The district has also partnered with BC Hydro to optimize and re-commission 27 of its buildings over the next three years.

Surrey School District was recognized for excellence in energy conservation, sustainability and design with a 2011 Clean Energy City Award from the City of Surrey.

Innovation
Surrey School District has implemented various behavioral programs and sustainability groups. SD36 developed a very successful energy conservation behavioral campaign that it promotes every year – The Energy Cup. The initiative takes the form of a competition between the secondary schools to help achieve large electrical savings. SD36 has partnered with FortisBC and BC Hydro to implement more than 7 different types of energy conservation & sustainability behavioral campaigns reaching most if not all of the 70,000 students in the district.

The Surrey School District also works with the energy intelligence provider Pulse Energy to acquire real-time data on energy use from the district’s largest sites. The "energy dashboard" allows the district’s community to view how much energy they are using, or saving, over time. With the help of BC Hydro, SD36 is teaching students across different secondary schools to monitor and understand their school’s electrical consumption patterns and how to make effective use of PULSE (30 schools are now using PULSE and are competing against each other to see who can get the most electrical savings; one school was able to achieve 17% of electrical savings last year).

SD36 also promotes leadership and environmental stewardship through its IDEAS36 Program that gathers more than 80 students each month. Students are invited from different schools to a monthly workshop with various presenters that come to talk about sustainability.
The district also supports various sustainability groups such as the energy ambassador training and the Surrey Youth Sustainability Network (SYSN). SYSN organizes conferences grouping speakers of various professional backgrounds to foster a dialogue on sustainability.

Woodward Hill Elementary was the District’s first school built to LEED Gold standards. The school opened in 2009 and has a number of features aimed at conserving energy and reducing its overall environmental impact including a geothermal heating system, natural lighting and car pool parking.

Lessons Learned
Collaboration has been critical to help build momentum in sustainability at the Surrey School District; the technical committee is always collaborating with the sustainability department to help implement projects. The Director of Energy Management and Sustainability position has seniority and this has helped to achieve results in sustainability. There is strong support from the Surrey School Board to advance sustainability and budgets are allocated towards sustainability initiatives. Surrey School District has also revised the way they evaluate the sustainability performance of schools, schools now get points based on the amount of innovative programs they participate in helping to stimulate momentum in sustainability in schools.

Level of Effort
SD36 has strong partnerships with BCHydro, FortisBC and the City of Surrey. The district has gathered more than a $1,000,000 of incentives from its partners and more than $3,000,000 worth of cumulative energy savings in the past 3 years, encouraging more funds to be allocated to the Energy Management & Sustainability department each year. Energy savings go back into a common fund. Given the success of the energy saving results, the Energy Management & Sustainability Department’s budget is continually increasing.

Relevance to Vancouver Board of Education
Creating an Energy Management and Sustainability Department can help to push the sustainability agenda forward. Collaborating with an energy intelligence provider Pulse Energy to acquire real-time data stimulates energy conservation management awareness.

Contact
Marc Tabet
Energy Specialist
tabet_m@surreyschools.ca
604. 595. 6406

References
Surrey Schools, Energy CUP Competition. Available at:
https://www.surreyschools.ca/ProgramsAndServices/EMAS/Announcements/DispForm.aspx?ID=2

Surrey Schools, Programs and Services. Available at:
https://www.surreyschools.ca/programsandservices/EMAS/Pages/default.aspx


Surrey Schools, Pulse Energy Performance Summary. Available at:
https://my.pulseenergy.com/SurreySchoolsEnergyConservationCupNRGDivision/dashboard/#/overview
SWEDEN

Description
Sweden’s National Agency for Education spearheaded the development of an award scheme in 1998, revamped in 2004, to encourage and further sustainability in schools across the country. Sitting within a national framework that promotes the goals of sustainable development and seeking to further implement the existing national curriculum, the Green School Award recognizes schools that incorporate sustainability into all aspects of school life. To achieve the award, several steps need to be taken including: obtaining whole school support from the governing body through to teachers and students; conducting a criteria-based audit of the current situation and activities; developing an action program; implementing actions; reporting documentation to apply for the award and developing new action areas. If these steps are successfully completed, a school receives the green flag diploma and can use the logo, valid for three years. The National Agency for Education, the central administrative authority for the Swedish public school system from preschools to adults, manages, funds and evaluates the program, and provides support to schools as needed.

Innovation
The adoption of the new award criteria in 2004 has resulted in a dramatic shift away from a focus on environmental outcomes towards a school culture and pedagogical approach which is more aligned with education for sustainability. The new syllabus implemented in 2000 has contributed to this change in focus, as well as Sweden signing the Baltic 21 Education document. Students and teachers must now work together to plan, carry out, follow up and evaluate learning activities concerning sustainable development. The whole school approach is rooted first in national curriculum, adding operations on top; however, community engagement does not appear to be a priority.

Towards addressing this gap, WWF Sweden ran a program called Schools on the Path to Sustainability from 2007-2010, a three-year project that worked with ten educational institutions across the country, including pre-schools, comprehensive schools, upper-secondary and a university college. The institutions developed Learning for Sustainable Development together with a tutor, attempting to target the whole school through addressing core values and participation; management, structure and monitoring; teaching and learning; interaction with the community (from local to global); and school estate and resource management. Their report (see References) includes details on innovations taken by each school involved in the project.

Another innovative initiative to highlight outside Green Schools is a flagship project on sustainable food systems from Sweden’s Regional Centre of Expertise on Education for Sustainable Development (RCE), in Skåne. As the Skåne region is famous for its agricultural production, the schools of Malmö (the largest city in the region) decided to help re-shape regional food systems by giving priority to local organic producers, to increase organic food in school meals. Part of the Skåne REC project is a community learning process through workshops and teacher training on food and sustainable consumption perspectives that address local, regional and global dimensions. The ambitious goal of eventually reaching 100% organic school meals has required the collaboration of schools, universities, the municipality and families of school children. To date, learning materials, research, awareness campaigns and supply chain innovations have led to a significant increase in organic food consumption at the regional schools.

Lessons Learned
Sweden’s National Agency for Education’s Green School Award evaluation found that smaller schools have been more successful in obtaining support and broad involvement of staff and students. This is due in part to the fact
that large schools often need to set up working groups to take care of the program, which may contribute to less people taking active involvement in the project, including students. Multi-stakeholder partnerships were key for the design of the program criteria, where round table discussions were held with a dozen organizations and public authorities, as well as for effective implementation and sustainability of the initiative itself.

Through its engagement with ten schools over three years, the WWF identified ecological footprints, reflection and action competence brought together under the umbrella of democracy as fundamental elements in education for sustainable development (WWF, p.61-72). Reflections on the process and from those involved highlight the importance of a holistic sustainable development approach, engaging beyond the school with the larger community and to learn from mistakes that will, undoubtedly, occur.

Level of Effort
During 1999-2001 the Swedish Government allocated 70 million SEK ($12 million CAD) to increase competencies in natural science, technology and the environment among teachers, pre-school teachers and recreation instructors. The Swedish National Agency for Education conducted professional development seminars for participating Green School Award schools with up to 300 pre-schools and schools attending during 1999 and 2003. The program sees to link to teacher training institutes as crucial to support program implementation. As a result of these seminars, a framework syllabus was developed for further teacher training on the environment.

Sweden’s Green School Award uses a school survey to directly report against the award criteria. This process assists all staff and students to view the strong and weak points of the schools activities and performance and provides a basis for the development of objectives in their action program. However the complexity and difficulties associated with the Green School Award application and renewal process became too burdensome for many schools, particularly pre-schools, and limited the number of schools who could achieve the award (218 schools are registered and 52 are award recipients).

Relevance to Vancouver Board of Education
The experience with the Green School Awards illustrates the risks behind developing a cumbersome process, reflected by the participation of relatively few schools. The long-term success of this program is also uncertain, as little to no materials were available on achievements post 2006. Although it was a three year project, many of the model schools profiled in WWF Sweden’s Schools on the Path to Sustainability report could provide ideas and inspiration to the Vancouver Board of Education, particularly in terms of the importance of process.

References


AUSTRALIA

Description
The Australian Sustainable Schools Initiative (AuSSI), is a whole-school approach to education for sustainability. Supported and promoted by the Department of the Environment, Water, Heritage and the Arts, in partnership with the governments of all the States and Territories, the vision of AuSSI is for “all Australian schools and their communities to be sustainable” (Australian Government, 2008, para 2). AuSSI supports the National Action Plan for Environmental Education (2000) and gives effect to the concepts and actions identified in Educating for a Sustainable Future - a National Environmental Education Statement for Australian Schools (2005).

AuSSI begin as a pilot project in 2002 with 100 schools in two Australian states. Due to its success, it has spread across the country and now engages almost 3000 schools and over 570,000 students across Australia, around 30% of schools nationally. AuSSI promotes the active engagement of stakeholders in programme development and management, including students, teachers, administrators, and communities. Action learning cycles – committing, auditing, developing goals and action plans, implementing, reflecting and improving – are used to “green” school management and governance processes; the curriculum and teaching and learning strategies; school buildings and school grounds; and to build partnerships between schools and their communities. Schools participating in AuSSI have reported reductions in waste collection of up to 80%, reductions in water consumption of up to 60% and savings on energy consumption of 20%. Schools are also achieving financial savings and broader social and educational benefits from increased school pride and interest in learning.

Innovation
The use of networks is a key strategy to develop a culture of sustainability within schools. AuSSI does not replace other environmental education activities in schools but rather links to and complements existing programmes such as Energy Smart Schools, WasteWise, Waterwatch, Waterwise, Landcare and the Reef Guardian Schools Programme. As part of the Initiative, teachers can receive much needed access to professional development in education for sustainability, delivered through supporting agencies and environmental education centres.

Engaging in AuSSI can take many and varied forms, reflecting a school’s unique character and culture within its region, and addressing its particular needs and the interests of students located there. For example, in Tasmania water efficiency is taught through harvesting rainwater for use on drought-tolerant, student-maintained gardens and students revegetated a local retirement village with support from local businesses, promoting cooperation within the community. In Northern Territory students planted a forestry plot, developing links with the wider community; an arbiculture and sustainability subject is integrated into the curriculum; students maintain a bush food garden, drawing on local indigenous knowledge; a rubbish-free canteen serves food on reusable plates with limited waste and avoids purchasing individually wrapped items.

Lessons Learned
A whole-school approach to school management, as promoted by AuSSI, requires the backing and support of the entire school community. Such an approach leads to a more sustainable process than traditional environmental education approaches, which were often driven by one engaged and committed teacher, who frequently burnt out in the process. Indeed, anecdotal evidence from AuSSI also suggests that schools with a narrow base of staff involvement have difficulty maintaining the program, particularly after staff changes.

Despite Australia’s long involvement with whole-school approaches to sustainability and with the exception of the
recent AuSSI program, successful examples are relatively rare in practice. There are a variety of reasons for this, not least of which is that teachers do not have the skills to address the complex and varied intricacies of dealing with sustainability at all levels of school management, that is, from classrooms and school grounds to school governance and community partnerships. Furthermore, teachers in Australian schools tend to be inadequately prepared for the challenges of participatory pedagogy, interdisciplinarity, action learning, and critical thinking that are commensurate with whole-school approaches. It is widely recognised that properly skilled educators are essential in a whole-school approach to sustainability as the approach requires different modes of teaching and learning focusing especially on democratic participation and active engagement by students in decision-making.

Level of Effort
Between 2002 and 2009 the DEWHA has invested $2.9 million in AuSSI through funding to the states and territories. The investments made by DEWHA have mostly been used in piloting and establishing the program and then consolidating and expanding it. Most state and territory education departments and/or environment departments (or equivalent) provide the personnel to implement AuSSI and make financial contributions as well.

The uptake of the AuSSI is dependent on teachers who are knowledgeable about sustainability and have the capacity to implement whole-school approaches. In their initial training, teachers may learn about sustainability in science, geography, or studies of society and environment curricula. However, sustainability does not feature in educational leadership, management, psychology or sociology classes thereby limiting the potential for whole-school approaches.

Relevance to Vancouver Board of Education
A report assessing models of professional development in pre-service teacher education for whole-school approaches to sustainability (see Ferreira et al. 2006 in the References) provides valuable insights into the type of training teachers require to most effectively implement education for sustainability. A study by Davis and Ferreira (2009) found that the more an implementation approach is networked, the more effectively new ideas and approaches can be introduced, taken up, and embedded into a system.

References


Conclusion
The establishment of eco schools, a Sustainability Office and an Environmental Legacy Fund are innovative initiatives that could potentially be replicated by other School Boards. Developing strong partnerships with the City, not-for-profits, foundations, utilities and government has proven to be a key success factor to help embed sustainability. As demonstrated by the Delta School District, Abbotsford School District and Surrey School District No. 36, the installation of touchscreens and programming of energy monitoring dashboards helps to build awareness and momentum around energy conservation. Establishing Green Teams that work on coordinating sustainability activities and making recommendations to the Sustainability Advisory Committee stimulates community engagement and a dialogue around embedding sustainability into the operations, curriculum and culture of schools. The creation of an Innovation Centre or an Environmental Science Centre can also give opportunity to kids of all income levels to explore and access nature and creates a sustainability hub to help foster innovation as demonstrated by Abbotsford School District and San Francisco Unified School District.

The creation of a sustainability office that has integrated a sustainability manager with seniority has proven to be critical to advance sustainability as demonstrated by the Toronto District School Board, Surrey School District No. 36 and Portland Public Schools. Portland Public Schools’ stormwater initiatives, community garden projects, cookbook fundraiser initiative and mentoring program are innovative projects that could be replicated by other School Boards.

Outlining sustainability goals including energy, waste diversion and transportation goals provides valuable direction for moving the sustainability agenda forward as demonstrated by San Francisco Unified School District and School District No. 38 (Richmond).

Both Sweden and Australia are national level experiences, clearly operating at a different scale from the Vancouver Board of Education, but offer valuable insights in existing experiences to develop and implement education for sustainability programs. In Sweden, multi-stakeholder partnerships are highlighted as being critical for the design and implementation of the National Agency for Education’s Green School Award. While the attempt to integrate the award with existing national curriculum is noteworthy, there seems to be a lack of community engagement that has been addressed by WWF Sweden’s Schools on the Path to Sustainability program. The Australian experience, in turn, is certainly a global best practice model with 30% of schools across the country participating with impressive results achieved to date. The support of the entire school community was found to be of fundamental importance, as are properly skilled educators. Valuable resources are included in the References of the Australian case study that address the type of training teachers require to most effectively implement education for sustainability in a whole-school approach.
Appendix C
Peer Comparison
### Appendix C: Peer Comparison

#### VBE Environmental Sustainability Audit

<table>
<thead>
<tr>
<th>Item Subset</th>
<th>VBE</th>
<th>Rating</th>
<th>Toronto School Board</th>
<th>Delta School Board District</th>
<th>Surrey School District</th>
<th>Richmond (no.38)</th>
<th>Abbotsford</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff (FTE)</strong></td>
<td>5468</td>
<td>n/a</td>
<td>1705</td>
<td>10,025 (not fte)</td>
<td>2151.75</td>
<td>2100 (fte and pte)</td>
<td></td>
</tr>
<tr>
<td><strong>Annual budget</strong></td>
<td>$492,100,000</td>
<td>n/a</td>
<td>$3 billion</td>
<td>$148,000,000</td>
<td>$594,386,958</td>
<td>$213,280,499</td>
<td>$195,000,000</td>
</tr>
<tr>
<td><strong>Number of students</strong></td>
<td>54,070</td>
<td>n/a</td>
<td>224,228</td>
<td>15,175</td>
<td>69,738</td>
<td>22,215</td>
<td>19,000</td>
</tr>
<tr>
<td><strong>Supporting policies and plans</strong></td>
<td>VBE Strategic Plan; Garden.</td>
<td>Middle</td>
<td>Policy Framework (P001), Purchasing (P017), Employment Equity (P029), Human Rights (P031), Equity Foundation (P027), Arts Foundation (P005), Urban Forest Management Plan, Go Green: Climate Action Plan.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Staff support</strong></td>
<td>3 support staff equivalent to 1 FTE.</td>
<td>Middle</td>
<td>Sustainability Office (total of 15 staff) includes Evergreen associates.</td>
<td>Energy Specialist position (funded by FortisBC), and Facilities Directors that receive support from Executive Staff.</td>
<td>Energy Management and Sustainability Department.</td>
<td>The Energy Specialist position is funded by FortisBC.</td>
<td>Energy Specialist position.</td>
</tr>
<tr>
<td><strong>Annual Reporting</strong></td>
<td>Annual ‘Carbon Neutral Action Report’: Quarterly reports to BC Hydro on district efforts on energy conservation.</td>
<td>Middle</td>
<td>Annual sustainability report, waste audits.</td>
<td>Auditing of utility consumption, setting performance targets, waste audits.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Partnerships</strong></td>
<td>BC Hydro, Translink, City of Vancouver.</td>
<td>Middle</td>
<td>Evergreen, City Parks Department.</td>
<td>BC Hydro PowerSmart, FortisBC.</td>
<td>BC Hydro, FortisBC, City of Surrey.</td>
<td>David Suzuki Foundation.</td>
<td>BC Hydro “Power Smart Partner”.</td>
</tr>
</tbody>
</table>
## Appendix C: Peer Comparison

<table>
<thead>
<tr>
<th>Item</th>
<th>Subset</th>
<th>San Francisco Unified School District</th>
<th>Portland</th>
<th>Vancity</th>
<th>Province of BC</th>
<th>UBC</th>
<th>City of Vancouver</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ORGANIZATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff (FTE)</td>
<td></td>
<td>8189 (not full)</td>
<td>6,544</td>
<td>2544 (as of 2012)</td>
<td></td>
<td></td>
<td>6,924 FTE, 3,228 part time</td>
</tr>
<tr>
<td>Annual budget</td>
<td></td>
<td>$960,600,000</td>
<td>$464,000,000</td>
<td>$423,000,000</td>
<td>1,203,000,000 (Vancouver campus)</td>
<td></td>
<td>1,147,900 (2013)</td>
</tr>
<tr>
<td>Number of students</td>
<td></td>
<td></td>
<td>55,000</td>
<td>47,529</td>
<td></td>
<td></td>
<td>55,985</td>
</tr>
<tr>
<td></td>
<td>Vancity's vision is to redefine wealth in a way that furthers the financial, social and environmental well-being of our members and their communities. Vancity is a member of the Global Alliance for Banking on Values.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vancity's environmental commitments include reducing its negative environmental impacts, helping members and employees act, enabling the community to act and encouraging government to implement public policy that reduces negative environmental impacts. Vancity also has a commitment to carbon neutrality.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laws on waste management, climate change (Climate Action Plan), Energy and others. Major relevant policies include the carbon tax, carbon neutral public sector and GHG emissions targets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior staff position</td>
<td>Director of Sustainability.</td>
<td>Resource Conservation Specialist.</td>
<td>Integrated throughout the organisation.</td>
<td></td>
<td></td>
<td></td>
<td>Associate Provost, Sustainability.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No specific role.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff support</td>
<td>EcoLiteracy Content Specialist, dedicated staff person focusing on delivering outdoor education with students.</td>
<td>Energy Specialist, Americorps volunteer within the Bureau of Environment and Sustainability.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The UBC Sustainability Initiative includes a central office, an academic sustainability office, a research and partnerships office and an operational management group. In total, there are approximately 20 FTE.</td>
</tr>
<tr>
<td>Reporting Frameworks</td>
<td>No overall reporting framework.</td>
<td>No overall reporting framework.</td>
<td>GRI and Accountability.</td>
<td></td>
<td></td>
<td></td>
<td>STARS</td>
</tr>
<tr>
<td>Annual Reporting</td>
<td>Annual commute survey. Post every school’s operational report card on the Green the Next Gen web site in a Schools Dashboard so that the public can track electricity, natural gas and water usage. The Green the Next Gen web site lists each school’s waste diversion rate by month calculated on the basis of trash vs. recycling/compost capacity; school performance ranges from a low of 10% to a high of 90%, with an average rate of 60% of waste that is not sent to the landfill.</td>
<td>Vancity has been reporting on its social and environmental performance since 1997, publishing seven sustainability reports covering 1997-2009. In 2010, Vancity began to produce integrated annual reports—reports that draw all its results together.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>UBC Sustainability Annual Report. Annual Implementation Update.</td>
</tr>
<tr>
<td>Partnerships</td>
<td>City of San Francisco.</td>
<td></td>
<td>Vancity Community Foundation, Modo Car Coop, Reconciliation Canada.</td>
<td></td>
<td></td>
<td></td>
<td>City of Vancouver, BC Hydro, PULSE energy, Sustainable Development Technology Canada, etc.</td>
</tr>
</tbody>
</table>
### GOALS/TARGETS & ACTIONS

<table>
<thead>
<tr>
<th>Item</th>
<th>Subset</th>
<th>VBE Rating</th>
<th>Toronto School Board</th>
<th>Delta School Board District</th>
<th>Surrey School District</th>
<th>Richmond (no.38)</th>
<th>Abbotsford</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Greenest school board in North America.</td>
<td>Leading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Waste Management Goals/Targets</strong></td>
<td></td>
<td></td>
<td>Reduce resource consumption and generation of waste while maintaining or enhancing operational effectiveness and workplace productivity: No specific target.</td>
<td>Middle</td>
<td>Implementing organics policy across all schools in the district (they are currently 52 sites on board), long-term goal of moving to zero waste.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Actions</strong></td>
<td></td>
<td></td>
<td>District wide recycling program, investigating district wide composting, establishing composting guidelines for schools.</td>
<td>Middle</td>
<td>Composting program throughout the schools.</td>
<td>Comprehensive recycling program.</td>
<td></td>
</tr>
<tr>
<td><strong>Energy + Climate Goals/Targets</strong></td>
<td></td>
<td></td>
<td>Reduce electricity and heating loads in an effort to conserve energy and reduce GHG emissions while maintaining or enhancing user comfort and convenience: No specific target.</td>
<td>Middle</td>
<td>Conserving electricity, fossil fuels and water through an energy management program designed to optimize energy use, reduce energy consumption and source-out alternative renewable energy sources.</td>
<td>Developing and executing a strategic energy management plan with targets, developing and maintaining a Green .</td>
<td>Goal is always to illustrate reduced consumption each year no matter the number.</td>
</tr>
<tr>
<td><strong>Actions</strong></td>
<td></td>
<td></td>
<td>Developing a ‘Strategic Energy Management Plan’, demonstrate leadership with renewable energy installations, solar schools, become a carbon neutral PSO-2010.</td>
<td>Middle</td>
<td>Energy monitoring dashboards, continued upgrading of controls for water, heating, lighting, demand ventilation in gyms and other building automation.</td>
<td>PULSE energy dashboard, dramatically reduced computer’s related energy waste, partnered with BC Hydro to optimize and re-commission 27 of its buildings, 2011 Clean Energy City Award, energy ambassador training program.</td>
<td>School district entered a contract to reduce energy costs.</td>
</tr>
<tr>
<td><strong>Transportation Goals/Targets</strong></td>
<td></td>
<td></td>
<td>Reduce transportation related emissions: No specific target.</td>
<td>Middle</td>
<td>Supporting sustainable transportation options for fleet vehicles and buses and for staff and students get to their place of learning.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Actions</strong></td>
<td></td>
<td></td>
<td>Implement Employer Transit Plan, VBE Bike Committee, support transit and bike training programs, install bike racks, establish ride-share website for staff.</td>
<td>Middle</td>
<td>Fleet management plan to replace antiquated vehicles and grounds equipment with new, fuel efficient, eco-friendly, size-specific equipment.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### GOALS/TARGETS

<table>
<thead>
<tr>
<th>Item</th>
<th>Subset</th>
<th>School Boards (US)</th>
<th>Other Organizations</th>
<th>Government</th>
<th>Higher Education</th>
<th>Municipalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Management</td>
<td>Goals/Target</td>
<td>San Francisco Unified School District</td>
<td>Portland</td>
<td>Vancity</td>
<td>Province of BC</td>
<td>UBC</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste Management</td>
<td>Goals/Target</td>
<td>San Francisco Board of Education landfill diversion goals of achieving 75% by 2015 and 85% by 2025.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td></td>
<td>Portland has an extensive waste management program including Fork It Over* and wormbins.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy + Climate</td>
<td>Goals/Target</td>
<td>Reduce district-wide energy use by 20% by 2020.</td>
<td>Goal is to measure and reduce our greenhouse gas emissions, then offset emissions through the purchase of carbon offsets from emission-reducing activities that others have undertaken.</td>
<td>33% over 2007 by 2020 and 80% over 2007 by 2050.</td>
<td>Reduce greenhouse gas emissions and be a net positive energy campus. Target: 33% reduction from 2007 levels by 2015.</td>
<td>Reduce community-based greenhouse gas emissions by 33% from 2007 levels.</td>
</tr>
<tr>
<td>Energy + Climate</td>
<td>Actions</td>
<td>Completed more than 150 energy projects, a 2.5KW wind turbine was installed at Skyline Elementary School, large-scale solar project.</td>
<td>Carbon neutral since 2008.</td>
<td>All new electricity generation projects will have zero net greenhouse gas emissions. Zero net greenhouse gas emissions from existing thermal generation power plants by 2016. Ensure clean or renewable electricity generation continues to account for at least 90% of total generation. No nuclear power.</td>
<td>In September 2012, UBC opened the Bioenergy Research and Demonstration Facility, the first biomass gasification co-generation facility of its kind in the world. The $34-million clean energy facility will eliminate 9 per cent of campus GHG emissions and generate enough clean electricity to power 1,500 homes. As part of the Academic District Energy System (ADES) Upgrades, UBC has also completed Phases 2 and 3 of one of the largest steam to hot water conversions in North America.</td>
<td>Vancouver’s Neighbourhood Energy Strategy was adopted by Council in October 2012. The City is also implementing a Climate Change Adaptation Strategy.</td>
</tr>
<tr>
<td>Transportation</td>
<td>Goals/Target</td>
<td>Goal to be 75% Car Free by 2020. SFUSD have calculated the distance each student lives from school, and have set the following targets: students living less than half a mile should walk, less than two miles should bike, and those over that should carpool or take either a school or public bus. Currently 48% of students in the district do not come in cars.</td>
<td>Deploying of electric vehicle charging stations on campus, revised community shuttle route, Walk’n Roll to School Program, Bike to Work Week.</td>
<td>Make the majority of trips (over 50%) by foot, bicycle, and public transit. Reduce the average distance driven per resident by 20% from 2007 levels.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>Actions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Fork It Over* is a zero waste initiative for employees of UBC Vancouver's Neighbourhood Energy Strategy.
<table>
<thead>
<tr>
<th>Item</th>
<th>Subset</th>
<th>VBE</th>
<th>Toronto School Board</th>
<th>Delta School Board District</th>
<th>Surrey School District</th>
<th>Richmond (no.38)</th>
<th>Abbotsford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement Goals/Target s</td>
<td></td>
<td>Lagging</td>
<td></td>
<td>Adopting practices that protect the environment including substitution or elimination of the use of toxic and harmful substances, increased use of recycled and recyclable products.</td>
<td>Construction materials, reducing total purchasing, evaluating lifecycle cost, setting sustainable purchasing standards, packaging.</td>
<td>To support companies that demonstrate green practices.</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Increased efforts around sustainable purchasing.</td>
</tr>
<tr>
<td>School Greening Goals/Target s</td>
<td></td>
<td>Middle</td>
<td></td>
<td></td>
<td>Development of school gardens, outdoor learning spaces, natural play areas, integration of green space projects to curriculum learning outcomes.</td>
<td>Facilities Dept support the Greening of Schools as normal practice.</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td></td>
<td>Middle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The Carbonator Project (tree planting program).</td>
</tr>
<tr>
<td>Education &amp; Organizational Culture Goals/Target s</td>
<td></td>
<td>Middle</td>
<td></td>
<td></td>
<td>Building capacity, growing the next generation of environmental leaders, Green Teams, continuous learning, developed a long-term vision (2050 vision) that includes ambitious short-term and long-term goals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td></td>
<td>Leading</td>
<td></td>
<td>DeltaGreen Strategy, developing a District Sustainability Committee, Green Teams, behavioral change through educational programs and campaigns, Igniting a Spark symposium, sustainability grants.</td>
<td>The Energy Cup behavioral program, schools now get points based on the amount of innovative programs they participate in helping to stimulate momentum in sustainability.</td>
<td>Green Teams, Green Ambassadors Group, Richmond Sustainability Action Team (RSAT), Sustainability Grants to schools, Green Gala.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Climate Action Charter, District Innovation Centre, school libraries having educational material relating to recycling and preservation of the environment, school administrators encouraging student environmental awareness programs.</td>
</tr>
<tr>
<td>Item</td>
<td>Subset</td>
<td>School Boards (US)</td>
<td>Other Organizations</td>
<td>Government</td>
<td>Higher Education</td>
<td>Municipalities</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------</td>
<td>--------------------</td>
<td>---------------------</td>
<td>------------</td>
<td>------------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>Procurement Goals/Target</td>
<td>San Francisco Unified School District</td>
<td>Portland</td>
<td>Vancity</td>
<td>Province of BC</td>
<td>UBC</td>
<td>City of Vancouver</td>
<td></td>
</tr>
<tr>
<td><strong>Actions</strong></td>
<td>A collaborative effort by the Custodial Department and the Department of Public Health has led over half of the school sites to adopt Green Seal certified products.</td>
<td></td>
<td>Reducing the negative environmental impact of our operations.</td>
<td>UBC BuySmart, UBC Sustainable Campus Food Guide, UBC Fair Trade Week, Green Cleaning Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>School Greening</strong></td>
<td>Goals/Target</td>
<td>Turning asphalt play yards into green school yards. Major efforts to increase tree plantings at SFUSD sites, install rainwater harvesting cisterns to reduce water use and stormwater runoff.</td>
<td>Working on many stormwater and garden initiatives. There are sixty food gardens in the district. Created a fundraiser cookbook initiative.</td>
<td>Created two mini-parks, planted 12,500 trees since 2010, launched a treekeepers program and is developing an urban forest management strategy.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Education &amp; Organizational Culture</strong></td>
<td>Goals/Target</td>
<td>Twin goals of promoting student ecoliteracy while reducing the District’s environmental footprint. Cultivate a dynamic community of ecoliterate students, teachers and families, and to inspire, engage and sustain them in life-long science learning and exploration. “Ecoliteracy for All: Every Kid, Every Year, The City as our Classroom.”</td>
<td>Community impact loans, percentage of members who agree its contribution to the community has a positive effect on their well-being, ensuring treasury investments has a positive impact including reducing GHG emissions and waste.</td>
<td>Foster a culture of sustainability across campus and encourage high impact resource conservation behaviours.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Actions</strong></td>
<td>Environmental Science Centre, working on sustainability curriculum standards alignment. Green the Next Gen web site, extensive online resource. SF Green Schoolyard Alliance was founded to support the “creation of outdoor learning areas” in the district’s schools.</td>
<td>Sustainability Speaker Series, network of green school coordinators.</td>
<td>Formed Environmental Committees. Helping members and employees act by providing education, products and services that benefit the environment. Encouraging governments to implement public policy changes that reduce negative environmental impact.</td>
<td>In 2012, UBC initiated the development of a Campus Sustainability Engagement Strategy, which will outline the University’s approach for engaging campus community members to reduce energy use, GHG emissions, water, and waste generation.</td>
<td>Implemented the Greenest City Fund, launched the greenest city curriculum, developed Vancouver’s Food Strategy and launched updated farmers’ market policy.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix C: Peer Comparison

<table>
<thead>
<tr>
<th>Item</th>
<th>Subset</th>
<th>VBE</th>
<th>Rating</th>
<th>Toronto School Board</th>
<th>Delta School Board District</th>
<th>Surrey School District</th>
<th>Richmond (no.38)</th>
<th>Abbotsford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Design</td>
<td>Goals/Target(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Build or retrofit buildings to qualify for or exceed LEED building standards.</td>
<td></td>
<td></td>
<td>Middle</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construction of new building to LEED standards. Develop design standards manual, implement materials recycling for new construction and renovations, implement carpet waste recycling program.</td>
<td></td>
<td></td>
<td>Leading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INDICATORS**

<table>
<thead>
<tr>
<th>Energy costs per student</th>
<th>$99.4</th>
<th>Energy intensity/student/year =3840kwh*</th>
<th>not available</th>
<th>$105</th>
<th>$120.55*</th>
<th>not available</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHG emissions per student (kgCO2/student)</td>
<td>0.316</td>
<td>0.83</td>
<td>not available</td>
<td>0.27</td>
<td>0.3</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Water use per student (m³/student) | not available | 111.17 | 7.248 | 7.2 | 4.7 | 7.25 |

Notes

*2012/13 fiscal year utilities consumption data for the calculations

*based on energy costs for the 2013 calendar year
## Appendix C: Peer Comparison

### VBE Environmental Sustainability Audit

<table>
<thead>
<tr>
<th>Item</th>
<th>Subset</th>
<th>School Boards (US)</th>
<th>Other Organizations</th>
<th>Government</th>
<th>Higher Education</th>
<th>Municipalities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>San Francisco Unified School District</td>
<td>Portland</td>
<td>Vancity</td>
<td>Province of BC</td>
<td>UBC</td>
</tr>
<tr>
<td>Technical Design</td>
<td>Goals/Target(s)</td>
<td>The Long Range Facility Plan includes a guiding principle on sustainability with commitments to use life cycle costing, local procurement, building reuse, engagement, building design, community gardens and flexibility.</td>
<td>require all buildings constructed from 2020 onward to be carbon neutral in operations. reduce energy use and GHG emissions in existing buildings by 20% over 2007 levels.</td>
<td>require all buildings constructed from 2020 onward to be carbon neutral in operations. reduce energy use and GHG emissions in existing buildings by 20% over 2007 levels.</td>
<td>require all buildings constructed from 2020 onward to be carbon neutral in operations. reduce energy use and GHG emissions in existing buildings by 20% over 2007 levels.</td>
<td>require all buildings constructed from 2020 onward to be carbon neutral in operations. reduce energy use and GHG emissions in existing buildings by 20% over 2007 levels.</td>
</tr>
<tr>
<td></td>
<td>Actions</td>
<td>Portland is participating in the Better Buildings Challenge, a program of the US Department of Energy.</td>
<td>Revised UBC's LEED Implementation Guide. Opened the Earth Sciences Building and Pharmaceutical Sciences Building, state-of-the-art learning and research facilities both designed to LEED Gold standards. Centre for Interactive Research on Sustainability (CIRS), designed to be the most innovative and high performing building in North America. Total LEED registered and certified projects: 18 [4 certified, all LEED Gold].</td>
<td>The Vancouver Building Bylaw update will propose cost-effective standards that will ensure new homes built in Vancouver are 50 percent more energy efficient than the 2012 BC Building Code.</td>
<td>The Vancouver Building Bylaw update will propose cost-effective standards that will ensure new homes built in Vancouver are 50 percent more energy efficient than the 2012 BC Building Code.</td>
<td>The Vancouver Building Bylaw update will propose cost-effective standards that will ensure new homes built in Vancouver are 50 percent more energy efficient than the 2012 BC Building Code.</td>
</tr>
</tbody>
</table>

### INDICATORS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>San Francisco Unified School District</th>
<th>Portland</th>
<th>Vancity</th>
<th>Province of BC</th>
<th>UBC</th>
<th>City of Vancouver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy costs per student</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
</tr>
<tr>
<td>GHG emissions per student (kgCO2/student)</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
</tr>
<tr>
<td>Water use per student (m3/student)</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
<td>not available</td>
</tr>
</tbody>
</table>

Notes
Appendix D
Revised Sustainability Framework
Context:
This Appendix represents a proposed revision to the 2010 Sustainability Framework. Features of this revision include:

- Maintaining the existing vision statement and guiding principles;
- Revision of the 6 Key Result Areas (KRAs) to seven in order to bring greater emphasis to the educational and learning opportunity that exists; and
- Providing a number of metrics for tracking and potential targets setting. (These are further elaborated in Appendix E).

The proposed list of metrics and indicators would be developed and refined as the information required for each is assessed and evaluated. Some of the metrics are already being tracked through existing initiatives, some may be easily created through existing data collected, and some may require new information to be collected.

The objective of this extensive list of metrics is to demonstrate the nature and breadth of sustainability activities and the variety of information that could be used to track progress towards the vision of being the ‘greenest, most sustainable school district in North America’. It is recognized that as an action plan is developed, some of these metrics may be non-viable or require revision. While this may be expected, it still remains that some form of robust monitoring framework will be needed to make progress and to achieve the VBE’s vision.
VBE Sustainability Vision Statement

The Vancouver Board of Education will be the greenest, most sustainable school district in North America.

To become the greenest, most sustainable school district in North America VBE will support students and employees in becoming conscious citizens and decision-makers. Through efforts in the classroom and operations, VBE will minimize or eliminate its negative impacts on air quality, climate, soil, water and biodiversity.

The VBE is aware that climate change is a significant environmental challenge and threat to the health of the planet and the wellbeing of our species. The impacts of climate change are already being felt globally and locally.

In order to adequately address the overlapping environmental and humanitarian challenges the world faces, we require approaches that combine thoughtful analyses, holistic understanding and connection of causation with bold, creative and empowering action. Within great challenge resides great opportunity. The VBE is committed to supporting our students and staff to explore and showcase the many opportunities that addressing our environmental challenges provide.

As environmental challenges increase in scope and intensity, they have a more pronounced impact on humanitarian and human rights issues. The VBE is a recognized global leader in the realm of Social Responsibility and has invaluable experience infusing Social Responsibility into its culture and way of working. This experience provides a template that the board can build upon which will combine its expertise on Social Responsibility with action on the environment. In essence, the VBE will be a leader in implementing Environmental processes and solutions that enhance equity and equality.

The VBE will take an approach, which merges both sound ecological understanding with thoughtful action. As an institution whose purpose is the education of young people and the preparation of those young people with the skills and capacity to engage in community as active citizens, the board takes seriously its responsibility to support and educate young people on sustainability.

The VBE will make sustainability a core, embedded and pervasive element in our school system, something that is an integral part of everything we do, from what and how we teach and learn, to how we retain employees, maintain our facilities, balance our budgets and cultivate relationships within our system and with the community.
Sustainability framework guiding principles

• The VBE will be a sustainability leader in all aspects of our operations.

• The VBE will be the school district that others look to for inspiration and innovation on ideas that connect education and sustainability.

• The VBE will incorporate sustainability into all aspects of how we as a district function.

• Sustainable thought and action will be integral to what we do and how we do it.

• The VBE will look for best practices from other jurisdictions and boards and seek and support innovative internal solutions to our sustainability challenges.

• The VBE will establish strong goals and targets in Key Result Area’s and will establish a process to continually review progress towards those goals.

• Where appropriate, the VBE will work with other entities to ensure its goals and targets connect with complimentary sustainability plans and goals.
Key Result Areas (KRA’s), Goals, Targets and Metrics

1. Education & Ecoliteracy

**Goal:**
Facilitate student learning focused on environmentally sustainable work, life, and community values and practices.

**Description:**
The mission of the VBE is “to enable students to reach their intellectual, social, aesthetic and physical potential in challenging and stimulating settings which reflect the worth of each individual and promote mutual respect, cooperation and social responsibility.” The single most important contribution that the VBE can make toward advancing environmental sustainability goals is to invest in the development of an ecologically literate generation of leaders as a key part of achieving this mission. This can be done through integration of environmental sustainability topics into formal curriculum, as well as other student learning opportunities.

**Potential Targets:**
Recommendation for VBE: Employ a sustainability literacy survey to establish a baseline of knowledge and establish a target against those results.

Portland: United Nations University Institute for Advanced Studies of Sustainability has acknowledged greater Portland as a Regional Center of Expertise on education for sustainable development, alongside 127 of centers worldwide.

Sweden: Significant investment in teacher training in natural science and environment, with 300 schools participating in professional development seminars over a 4 year period.

**Potential Metrics:**

<table>
<thead>
<tr>
<th>Label</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>E 1</td>
<td>Percentage of schools that have integrated environmental sustainability into their school plan</td>
</tr>
<tr>
<td>E 2</td>
<td>Number of academic courses focused on sustainability</td>
</tr>
<tr>
<td>E 3</td>
<td>Percentage of students participating in a sustainability-focused immersive experience</td>
</tr>
<tr>
<td>E 4</td>
<td>Results of a sustainability literacy assessment</td>
</tr>
<tr>
<td>E 5</td>
<td>Extent of student educators program, orientation, and student life</td>
</tr>
<tr>
<td>E 6</td>
<td>Number of student-led sustainability projects and initiatives (both new and sustained)</td>
</tr>
<tr>
<td>E 7</td>
<td>Number of projects and programs that demonstrate use of schools as living laboratories</td>
</tr>
<tr>
<td>E 8</td>
<td>Number of student hours dedicated to community service in support of environmental sustainability goals</td>
</tr>
</tbody>
</table>
2. Organizational Culture

Goals:
- Nurture, develop and value a culture of sustainability in all areas of the organization.
- Support, encourage and enable sustainability leadership amongst all stakeholders throughout organization.

Description:
Integration of environmental sustainability into the DNA of the VBES organization and mandate will ease and expedite achievement of the sustainability vision. Organizational culture is shaped over time, and also in every interaction among stakeholders, and environmental sustainability considerations should be integrated into those interactions.

Potential Targets:
Recommendation for VBE: develop target that includes number of schools meaningfully including environmental sustainability in their school plan.

Richmond: 100% of sites have a green team with representation from administration, operations staff, teachers and parents.

Toronto: Eco Schools program and certification

Australia: 30% of schools participating in comprehensive “action learning cycles” to green school operations, governance, curriculum, and to develop partnerships. Resulting in up to 80% waste diversion, 60% reduction in water consumption, and 20% energy savings.

Potential Metrics:

<table>
<thead>
<tr>
<th>Label</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Org 1</td>
<td>Number of positions, not focused solely on environmental sustainability, with clear and relevant environmental sustainability expectations included in job description, with performance review process in place to evaluate progress</td>
</tr>
<tr>
<td>Org 2</td>
<td>Number of employees participating in educators program and orientation</td>
</tr>
<tr>
<td>Org 3</td>
<td>Number of employees with access to, and using, incentives (e.g.: release time, professional development, training) for developing courses and staff professional development</td>
</tr>
<tr>
<td>Org 4</td>
<td>Extent of outreach materials, publications, and campaigns</td>
</tr>
<tr>
<td>Org 5</td>
<td>Number of community partnerships that leverage knowledge, experience, project management, funding, and other supports.</td>
</tr>
<tr>
<td>Org 6</td>
<td>Incidents of active participation in public policy related to environmental sustainability</td>
</tr>
<tr>
<td>Org 7</td>
<td>Amount of outside funding leveraged to help achieve environmental sustainability vision, goals, and targets</td>
</tr>
</tbody>
</table>
3. Energy & Climate Change

Goals:
- Reduce purchased natural gas, hot water, and electricity consumption
- Reduce greenhouse gas emissions
- Integrate learning and teaching opportunities to encourage responsible energy use and understanding of climate change

Description:
The VBE uses energy in a variety of ways including operational activities, transportation to/from school, and others and these activities result in the production of greenhouse emissions. These can be managed and reduced through design, operations, maintenance and education while maintaining or enhancing user comfort and convenience.

Potential Targets:
Energy:
- VBE has five year reduction targets (by 2018) of 10\% in electricity use in existing facilities and a 5\% reduction in natural gas consumption across existing facilities (from Strategic Energy Management Plan, April 2014)
- VBE develops annual target for electricity reduction (BC Hydro energy manager program and budget process)
- Abbotsford: realized a 45\% reduction in energy use since the late 1990’s

Greenhouse Gas Emissions:
- Recommendation for VBE: develop target based on other relevant jurisdictions as well as Strategic Energy Management Plan
- Provincial Target: 33\% reduction over 2007 by 2020, 80\% reduction by 2050
- City of Vancouver target: Reduce community-based greenhouse gas emissions by 33\% from 2007 levels, by 2020

Potential Metrics:

<table>
<thead>
<tr>
<th>Label</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;C 1</td>
<td>Energy consumption</td>
</tr>
<tr>
<td>E&amp;C 2</td>
<td>Energy intensity</td>
</tr>
<tr>
<td>E&amp;C 3</td>
<td>GHG emissions, scope 1, 2 and 3</td>
</tr>
<tr>
<td>E&amp;C 4</td>
<td>Clean and renewable energy</td>
</tr>
<tr>
<td>E&amp;C 5</td>
<td>Climate adaptation, risk assessment, and financial risks due to climate change included in asset management, infrastructure, strategic planning, and capital planning processes.</td>
</tr>
</tbody>
</table>
4. Resource & Waste Management

Goals:
- Reduce and eliminate the once-through flow of material and water resources by rethinking, re-designing, reducing, reusing, repurposing, and recycling.
- Reduce solid waste going to landfill, liquid waste going to treatment plants, stormwater flow to sewer system, and greenhouse gas emissions.
- Increase stakeholder literacy about resource and waste management issues.
- Integrate learning and teaching opportunities to encourage zero waste decisions and choices.

Description:
Mindful use of both renewable and non-renewable resources is an important environmental sustainability objective, and the VBE has many opportunities to reduce impacts of resource consumption and waste production for both solid and liquid wastes through procurement decisions, operational activities, design, and stakeholder habits and choices.

Potential Targets:
- Recommendation: VBE to develop a waste diversion target and a potable water reduction target using targets and actual performance from other jurisdictions.
- City of Vancouver: Reduce solid waste going to landfill or incinerator by 50% from 2008 levels, by 2020. Reduce per capita water consumption by 33% from 2006 levels, by 2020.
- Portland: ambitious on-site stormwater management infrastructure program at many school sites.
- San Francisco: target of 75% diversion by 2015, 85% diversion by 2025.

Potential Metrics:

<table>
<thead>
<tr>
<th>Label</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;W 1</td>
<td>Weight of waste generated</td>
</tr>
<tr>
<td>R&amp;W 2</td>
<td>Weight of hazardous waste generated</td>
</tr>
<tr>
<td>R&amp;W 3</td>
<td>Percentage total solid waste to landfill, by type</td>
</tr>
<tr>
<td>R&amp;W 4</td>
<td>Percentage total solid waste diverted, by type</td>
</tr>
<tr>
<td>R&amp;W 5</td>
<td>Percentage construction and demolition waste diverted</td>
</tr>
<tr>
<td>R&amp;W 6</td>
<td>Weight of waste avoided/minimized</td>
</tr>
<tr>
<td>R&amp;W 7</td>
<td>Total volume potable water used, by type</td>
</tr>
<tr>
<td>R&amp;W 8</td>
<td>Total volume of rain-, grey- and blackwater reused, by use</td>
</tr>
<tr>
<td>R&amp;W 9</td>
<td>Percentage of facilities and grounds (by area) designed to reduce stormwater runoff through storage, retention, on-site infiltration, and other strategies.</td>
</tr>
</tbody>
</table>
5. Transportation

Goals:
- Reduce transportation-related emissions from both fleet and personal transportation to and from work and to and from school.
- Increase health and well-being of stakeholders by encouraging and supporting active transportation.
- Integrate learning and teaching opportunities into design and implementation of transportation systems, infrastructure, strategies and choices.

Description:
A significant opportunity to reduce greenhouse gas emissions, improve health and wellbeing, and more effectively use limited land resources is to reduce trips made in cars and increase the use of active and shared modes of transportation.

Potential Targets:
- Recommendation: VBE to set a target focused on increasing trips made by active transportation and public transportation.
- City of Vancouver: Make the majority of trips (over 50%) of trips by foot, bicycle and public transit.
- San Francisco: goal of being 75% car free by 2020 for commutes to school.

Potential Metrics:

<table>
<thead>
<tr>
<th>Label</th>
<th>Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>T 1</td>
<td>Mode share: percentage of trips to/from work or school by single occupant vehicle; carpool; public transit; walk; bike; other active mode for students and staff</td>
</tr>
<tr>
<td>T 2</td>
<td>GHG emissions for work trips (fleet, personal vehicle trips that are reimbursed)</td>
</tr>
<tr>
<td>T 3</td>
<td>Percentage of total trips made for work purposes that use public transit or active modes.</td>
</tr>
<tr>
<td>T 4</td>
<td>Percentage of fleet vehicles that are hybrid, electric, and/or biofuel powered</td>
</tr>
<tr>
<td>T 5</td>
<td>Percentage of staff and students with access to sustainable transportation infrastructure and incentives.</td>
</tr>
</tbody>
</table>
6. Green and Productive Landscapes

Goals:
- Increase activation of just and sustainable school food system infrastructure and practices in school systems.
- Fully integrate nature- and habitat-focused spaces into school grounds.
- Consider city- and region-wide environmental sustainability goals in policy and planning related to land assets.
- Ensure that the land assets are used at their highest and most productive environmental and learning-focused uses.
- Food- and nature-focused learning and teaching will be integrated throughout system.

Description
VBE is a land-rich organization with sites in every Vancouver neighbourhood, and there are many more opportunities to fully utilize this resource in service of student learning, neighbourhoods and communities, and biodiversity.

Potential Targets:
- Recommendation for VBE: include a target that considers increasing food assets of specific interest/focus for VBE; include a target about accessing natural, green, forested spaces on school grounds; consider inclusion of a tree planting target.
- City of Vancouver: Increase city-wide and neighbourhood food assets by a minimum of 50% over 2010 levels by 2020. Plant 150,000 new trees by 2020. Ensure that everyone lives within a five-minute walk of a park, greenway, or other green space by 2020.
- Portland: ambitious school garden program (60 gardens) with connections to serving food in school cafeterias.
- Toronto: developed urban forest management plan for the school district.

Potential Metrics:

<table>
<thead>
<tr>
<th>Label</th>
<th>Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>L 1</td>
<td>Number of food assets (gardens, farms, composting systems, learning/teaching kitchens, fruit trees, etc.)</td>
</tr>
<tr>
<td>L 2</td>
<td>Percentage of landscape managed using sustainability principles and practices.</td>
</tr>
<tr>
<td>L 3</td>
<td>Percentage of schools with nature and/or habitat focused area on school grounds</td>
</tr>
<tr>
<td>L 4</td>
<td>Number of trees planted</td>
</tr>
</tbody>
</table>
7. Procurement and Supply Chain Management

Goals:
- Purchase products and services that enhance environmental benefits and/or reduce negative environmental impacts.
- Positively value suppliers who demonstrate socially and environmentally responsible practices.
- Integrate learning and teaching opportunities into procurement decision-making in order to increase stakeholder literacy about the importance of socially and environmentally responsible purchasing choices at work, school, and home.

Description:
The VBE is a significant buyer of goods and services, from food supplied in cafeterias through to materials specified in construction projects. There is a significant opportunity to send clear signals to the marketplace about environmental expectations that the VBE has of its suppliers, and to work with other public sector agencies to leverage this financial capacity even further.

Potential Targets:
- Recommendation for VBE: establish a target for the number and type of buys that have strong local and environmental criteria in their evaluation, and that these criteria make up a significant percentage of the evaluation matrix.
- Sweden: 100% organic school meals.

Potential Metrics:

<table>
<thead>
<tr>
<th>Label</th>
<th>Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>P 1</td>
<td>Percentage of dollars spent on goods and services where suppliers were evaluated using local and environmental criteria.</td>
</tr>
<tr>
<td>P 2</td>
<td>Number of contracts in place with clear policies or guidelines regarding sustainable practices.</td>
</tr>
<tr>
<td>P 3</td>
<td>Usage of environmentally preferable materials in building construction and major renovations.</td>
</tr>
<tr>
<td>P 4</td>
<td>Percentage of electronics purchased that achieve EPEAT gold certification</td>
</tr>
<tr>
<td>P 5</td>
<td>Percentage of cleaning products purchased that are Green Seal or EcoLogo certified, and/or are waterless systems</td>
</tr>
<tr>
<td>P 6</td>
<td>Percentage of office paper purchased that contains a minimum of 70% post-consumer recycled content, agricultural residue, and/or is FSC certified.</td>
</tr>
<tr>
<td>P 7</td>
<td>Percentage of total purchases that are from local suppliers and/or are social enterprises</td>
</tr>
<tr>
<td>P 8</td>
<td>Percentage of food and beverage purchases that are sustainably produced.</td>
</tr>
<tr>
<td>P 9</td>
<td>Percentage (by floor area) of new buildings and major renovations achieving minimum LEED gold certification</td>
</tr>
<tr>
<td>P 10</td>
<td>Percentage of investments made by the VBE, or on behalf of VBE staff, that meet sustainability criteria.</td>
</tr>
<tr>
<td>P 11</td>
<td>Number of products procured that are known to include substances on the Living Building Challenge Red List</td>
</tr>
</tbody>
</table>
General Organizational Metrics

<table>
<thead>
<tr>
<th>Label</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>O 1</td>
<td>Description of purpose of organization</td>
</tr>
<tr>
<td>O 2</td>
<td>Location(s)</td>
</tr>
<tr>
<td>O 3</td>
<td>IECC climate region</td>
</tr>
<tr>
<td>O 4</td>
<td>Market served</td>
</tr>
<tr>
<td>O 5</td>
<td>Full-time equivalent enrollment</td>
</tr>
<tr>
<td>O 6</td>
<td>Total number of FTE employees</td>
</tr>
<tr>
<td>O 7</td>
<td>FTE staff with sustainability focused mandate</td>
</tr>
<tr>
<td>O 8</td>
<td>Annual operating budget by category, including capital budget</td>
</tr>
<tr>
<td>O 9</td>
<td>Total land area</td>
</tr>
<tr>
<td>O 10</td>
<td>Gross floor area of building space</td>
</tr>
<tr>
<td>O 11</td>
<td>Stakeholder organizations engaged</td>
</tr>
<tr>
<td>O 12</td>
<td>Governance structures on environmental sustainability</td>
</tr>
<tr>
<td>O 13</td>
<td>Frequency of review of sustainability issues by governance body</td>
</tr>
<tr>
<td>O 14</td>
<td>Sustainability planning (i.e. comprehensive strategic plans in place covering a variety of topics, and including measurable goals and objectives)</td>
</tr>
<tr>
<td>O 15</td>
<td>Reporting period and reporting cycle</td>
</tr>
</tbody>
</table>

**Reporting Cycle**
Staff will report at least annually to the Board, stakeholders and the public on progress toward meeting KRAs, including indicators, targets, projects, and commitments.
Appendix E

Proposed Indicator Framework
This page deliberately blank to facilitate double-sided printing
<table>
<thead>
<tr>
<th>Label</th>
<th>Indicator</th>
<th>Description</th>
<th>Reference</th>
<th>Now</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>E 1</td>
<td>Percentage of schools that have integrated environmental sustainability into their school plan.</td>
<td>School plans are produced annually, and could include a requirement to address environmental sustainability in a way that is meaningful and relevant for each school. Data collected by reviewing each school plan for sustainability content.</td>
<td>n/a</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>E 2</td>
<td>Number of academic courses focused on sustainability.</td>
<td>A course that includes sustainability incorporates a unit of module on sustainability or a sustainability challenge, includes one or more sustainability-focused activities, or integrates sustainability issues throughout the course. Data collected through a course inventory.</td>
<td>STARS AC1</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>E 3</td>
<td>Percentage of students participating in a sustainability-focused immersive experience.</td>
<td>Sustained immersive experiences such as community-based internships, outdoor education, and focused study programs give students the opportunity to learn in-depth about sustainability challenges and solutions. Program should be one week or more in length. Data collected through a course inventory.</td>
<td>STARS AC5</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>E 4</td>
<td>Results of a sustainability literacy assessment.</td>
<td>The sustainability literacy assessment focuses on knowledge of sustainability topics and may also address values, behaviours and/or beliefs. Majority of student population should be assessed, with a follow-up assessment with the same cohort also taking place. This helps institutions evaluate the success of their sustainability education initiatives, and develops insight into how these initiatives could be improved.</td>
<td>STARS AC6</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>E 5</td>
<td>Extent of student educators program, orientation, and student life.</td>
<td>Students have formal role, are trained, and have staff/financial support to undertake peer-to-peer outreach program. Sustainability is included in student orientation activities. Schools have co-curricular programs and initiatives that contribute to student sustainability learning outside of the classroom.</td>
<td>STARS EN1, EN2, EN3</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>E 6</td>
<td>Number of student-led sustainability projects and initiatives (both new and sustained).</td>
<td>Data collected by surveying all student initiatives, including start dates, and reviewing which projects continue over multiple years.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of projects and programs that demonstrate use of schools as living laboratories.</td>
<td>Utilise infrastructure and operations as living environments for multidisciplinary learning, applied projects, and practical work. Should include projects connected to the different KRAs.</td>
<td>STARS AC8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>E 7</td>
<td>Number of student hours dedicated to community service in support of environmental sustainability goals.</td>
<td>Student participation (hours) in community service focused on sustainability challenges.</td>
<td>STARS EN12</td>
<td>Y</td>
<td></td>
</tr>
</tbody>
</table>
### Organizational Culture

<table>
<thead>
<tr>
<th>Label</th>
<th>Indicator</th>
<th>Description</th>
<th>Reference</th>
<th>Now</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Org 1</td>
<td>Number of positions, not focused solely on environmental sustainability, with clear and relevant environmental sustainability expectations included in job description, with performance review process in place to evaluate progress.</td>
<td>Indicates shared responsibility for sustainability objectives throughout organisation. Data collected through surveying job descriptions and performance review criteria.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Org 2</td>
<td>Number of employees participating in educators program and orientation.</td>
<td>Teaching and other staff have formal role, are trained, and have staff/financial support as peer-to-peer outreach and education resources. Sustainability is included in new employee orientation.</td>
<td>STARS EN6, EN7</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Org 3</td>
<td>Number of employees with access to, and utilising, incentives for developing courses and staff professional development.</td>
<td>Incentives could include release time, professional development, training opportunities, and others to encourage new course development, integration of sustainability into curriculum, and general professional development.</td>
<td>STARS AC7, EN8</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Org 4</td>
<td>Extent of outreach materials, publications, and campaigns.</td>
<td>Outreach materials and publications are produced to foster sustainability learning and knowledge outside the formal classroom. Can be on-line, print, signage, guides, articles, social media, etc. Sustainability outreach campaigns that yield measurable, positive results in advancing sustainability performance by engaging campus community.</td>
<td>STARS EN4, EN5</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Org 5</td>
<td>Number of community partnerships that leverage knowledge, experience, project management, funding, and other supports.</td>
<td>Number of formal partnerships in place with the community with the aim of working together toward sustainability objectives. Partnerships could include: other districts, post-secondary education, government agencies, non-profit organisations, businesses, cooperatives, and other entities.</td>
<td>STARS EN9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Org 6</td>
<td>Incidents of active participation in public policy related to environmental sustainability.</td>
<td>Promote sustainability through public policy advocacy, including (but not limited to) policies specific to education.</td>
<td>STARS EN14</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Org 7</td>
<td>Amount of outside funding leveraged to help achieve environmental sustainability vision, goals, and targets.</td>
<td>Dollars leveraged in support of sustainability initiatives from non-VBE partners.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Label</td>
<td>Indicator</td>
<td>Description</td>
<td>Reference</td>
<td>Now</td>
<td>Future</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
<td>-------------</td>
<td>-----------</td>
<td>-----</td>
<td>--------</td>
</tr>
<tr>
<td>E&amp;C 1</td>
<td>Energy consumption</td>
<td>Energy consumed by fuel source and by usage. Show trends to demonstrate increases or reductions over time by collecting and analysing historic data.</td>
<td>GRI G4-EN3, EN4, EN6; STARS OP3, OP8</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>E&amp;C 2</td>
<td>Energy intensity</td>
<td>Energy consumed per square meter of built space.</td>
<td>GRI G4-EN5</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>E&amp;C 3</td>
<td>GHG emissions</td>
<td>Include all scope 1 and 2 emissions; consider including scope 3.</td>
<td>GRI G4-EN15, 16, 17, 19; STARS OP1, OP3; GCAP</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>E&amp;C 4</td>
<td>Clean and renewable energy</td>
<td>Clean and renewable energy generated on-site, measured by MMBtu. Consider including purchase of Green-e certified renewable energy credits as well.</td>
<td>STARS OP9</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>E&amp;C 5</td>
<td>Climate adaptation, risk assessment, and financial risks due to climate change included in asset management, infrastructure, strategic planning, and capital planning processes.</td>
<td>Financial risk: A description of the risk or opportunity and its classification as either physical, regulatory, or other. A description of the impact associated with the risk or opportunity. The financial implications of the risk or opportunity before action is taken. The methods used to manage the risk or opportunity. The costs of actions taken to manage the risk or opportunity.</td>
<td>GRI G4-EC2</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Label</td>
<td>Indicator</td>
<td>Description</td>
<td>Reference</td>
<td>Now</td>
<td>Future</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>-----</td>
<td>--------</td>
</tr>
<tr>
<td>R&amp;W 1</td>
<td>Weight of waste generated.</td>
<td>Strategies and procedures are in place to minimize use of hazardous materials, and safely dispose of all hazardous, special, universal, and non-regulated chemical waste. Program to reduce purchase of, reuse, recycle, and/or refurbish electronic waste.</td>
<td>GRI G4-EN23</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>R&amp;W 2</td>
<td>Weight of hazardous waste generated.</td>
<td></td>
<td>GRI G4-EN23; STARS OP25</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>R&amp;W 3</td>
<td>Percentage total solid waste to landfill, by type.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;W 4</td>
<td>Percentage total solid waste diverted, by type.</td>
<td>Includes diversion of materials from the landfill or incinerator by recycling, composting, reusing, donating, re-selling, or other.</td>
<td>STARS OP23; GCAP</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>R&amp;W 5</td>
<td>Percentage construction and demolition waste diverted.</td>
<td>Includes diversion of construction and demolition wastes from landfill or incinerator.</td>
<td>STARS OP24; GCAP</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>R&amp;W 6</td>
<td>Weight of waste avoided/minimised.</td>
<td>Have implemented source reduction strategies to reduce the total amount of waste (both disposed and diverted).</td>
<td>STARS OP22</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>R&amp;W 7</td>
<td>Total volume potable water used, by usage type and facility.</td>
<td>Includes all indoor and outdoor water uses.</td>
<td>STARS OP3, OP26; GCAP</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>R&amp;W 8</td>
<td>Total volume of rain, grey- and blackwater reused, by use.</td>
<td>Grey (rainwater) and black (sewage) water stored, treated and reused on site.</td>
<td>STARS OP26</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>R&amp;W 9</td>
<td>Percentage of facilities and grounds (by area) designed to reduce stormwater runoff through storage, retention, on-site infiltration, and other strategies.</td>
<td>Implement policies and programs that reduce stormwater runoff. Strategies include building and hardscape design, green infrastructure, and reuse. Should be explored in detail with any new construction or major renovations.</td>
<td>STARS OP27</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Label</td>
<td>Indicator</td>
<td>Description</td>
<td>Reference</td>
<td>Now</td>
<td>Future</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
<td>-------------</td>
<td>-----------</td>
<td>-----</td>
<td>--------</td>
</tr>
<tr>
<td>T 1</td>
<td>Mode share: percentage of trips to/from work or school by single occupant vehicle; carpool; public transit; walk; bike; other active mode for students and staff</td>
<td>Commute modal split is a common measure used to evaluate the sustainability performance of a transportation system. More sustainable commuting options include: walking, cycling, vanpooling, carpooling, public transportation, and others. Data collection should enable selection of multiple modes used for each trip.</td>
<td>STARS OP19, OP20; GCAP</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>T 2</td>
<td>GHG emissions for work trips (fleet, personal vehicle trips that are reimbursed)</td>
<td></td>
<td></td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>T 3</td>
<td>Percentage of total work trips taken by public transit or active modes.</td>
<td>This accounts for trips taken for work purposes, and would likely be partially accounted for through reimbursement for personal use of vehicle expenses and/or public transit expenses, as well as booking and use of fleet.</td>
<td></td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>T 4</td>
<td>Percentage of fleet vehicles that are hybrid, electric, and/or biofuel powered</td>
<td>Includes fleet vehicles that are: gas-electric hybrid; diesel-electric hybrid; plug-in hybrid; 100% electric; compressed natural gas; hydrogen; B20+ biofuel. Fleet includes all motorized vehicles for transporting people and/or goods, and includes leased and VBE-owned.</td>
<td>STARS OP18</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>T 5</td>
<td>Percentage of staff and students with access to sustainable transportation infrastructure and incentives.</td>
<td>Secure bike storage, shower/changing facilities; incentives for active transportation; incentives for public transit; electric vehicle charging infrastructure; carpool/vanpool incentives; telecommuting; car sharing; and others</td>
<td>STARS OP21</td>
<td>Y</td>
<td></td>
</tr>
</tbody>
</table>
### Green and Productive Landscapes

<table>
<thead>
<tr>
<th>Label</th>
<th>Indicator</th>
<th>Description</th>
<th>Reference</th>
<th>Now</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>L 1</td>
<td>Number of food assets (gardens, farms, composting systems, learning/teaching kitchens, fruit trees, etc.)</td>
<td></td>
<td>GCAP</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>L 2</td>
<td>Percentage of landscape managed using sustainability principles and practices.</td>
<td>Use of integrated pest management practices, plant protection and stewardship, soil stewardship, use of environmentally preferable materials, water use, materials management and waste minimisation, ice management.</td>
<td>STARS OP10</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>L 3</td>
<td>Percentage of schools with nature and/or habitat focused area on school grounds</td>
<td>Includes areas with native planting, natural forests, habitat/biodiversity focus, pollinator plantings, naturalised water features, etc.</td>
<td>GCAP</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>L 4</td>
<td>Number of trees planted</td>
<td></td>
<td>GCAP</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Label</td>
<td>Indicator</td>
<td>Description</td>
<td>Reference</td>
<td>Now</td>
<td>Future</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
<td>-------------</td>
<td>-----------</td>
<td>-----</td>
<td>--------</td>
</tr>
<tr>
<td>P 1</td>
<td>Percentage of dollars spent on goods and services where suppliers were evaluated using local and environmental criteria.</td>
<td>Considers total annual spend on goods and services, and tallies those where a significant component of the weighting was given to local and environmental considerations relevant to the particular purchase.</td>
<td>GRI G4-EN32</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>P 2</td>
<td>Number of contracts in place with clear policies or guidelines regarding sustainable practices.</td>
<td>VBE contracted work has clear policy on the sustainability of the work or service being provided.</td>
<td></td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>P 3</td>
<td>Usage of environmentally preferable materials in building construction and major renovations.</td>
<td>Use of relevant credits in the LEED scoring system focused on materials and resources.</td>
<td>STARS OP3</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>P 4</td>
<td>Percentage of electronics purchased that achieve EPEAT gold certification.</td>
<td></td>
<td>STARS OP12</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>P 5</td>
<td>Percentage of cleaning products purchased that are Green Seal or EcoLogo certified, and/or are waterless systems.</td>
<td></td>
<td>STARS OP13</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>P 6</td>
<td>Percentage of office paper purchased that contains a minimum of 70% post-consumer recycled content, agricultural residue, and/or is FSC certified.</td>
<td></td>
<td>STARS OP14</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>P 7</td>
<td>Percentage of total purchases that are from local suppliers and/or are social enterprises.</td>
<td>Work with other public sector buyers in the lower mainland to determine a relatively common and consistent definition of local that is defensible.</td>
<td>STARS OP15</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>P 8</td>
<td>Percentage of food and beverage purchases that are sustainably produced.</td>
<td>&quot;Sustainably produced&quot; includes: local and community-based; third party verified to be ecologically sound, fair and/or humane.</td>
<td>STARS OP6</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>P 9</td>
<td>Percentage (by floor area) of new buildings and major renovations achieving minimum LEED gold certification.</td>
<td>This is included in this section because a significant portion of the design and construction work is contracted out, and because LEED is a comprehensive set of considerations that don’t fit neatly into one of the other KRAs alone.</td>
<td>STARS OP4</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>P 10</td>
<td>Percentage of investments made by the VBE, or on behalf of VBE staff, that meet sustainability criteria.</td>
<td>Consider the pension fund(s) as the most significant VBE stakeholders are likely to be involved with.</td>
<td>STARS PA14</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>P 11</td>
<td>Number of products procured that are known to include substances on the Living Building Challenge Red List.</td>
<td></td>
<td></td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Label</td>
<td>Indicator</td>
<td>Description</td>
<td>Reference</td>
<td>Now</td>
<td>Future</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
<td>-------------</td>
<td>--------------------------</td>
<td>-----</td>
<td>--------</td>
</tr>
<tr>
<td>O 1</td>
<td>Description of purpose of organization</td>
<td>STARS; GRI G4-9</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 2</td>
<td>Location(s)</td>
<td>STARS</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 3</td>
<td>IECC climate region</td>
<td>STARS</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 4</td>
<td>Market served</td>
<td>GRI G4-8</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 5</td>
<td>Full-time equivalent enrollment</td>
<td>STARS G4-8</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 6</td>
<td>Total number of FTE employees</td>
<td>STARS; GRI G4-10</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 7</td>
<td>FTE staff with sustainability focused mandate</td>
<td>STARS</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 8</td>
<td>Annual operating budget by category, including capital budget</td>
<td></td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 9</td>
<td>Total land area</td>
<td>STARS</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 10</td>
<td>Gross floor area of building space</td>
<td>STARS</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 11</td>
<td>Stakeholder organizations engaged</td>
<td>GRI G4-24, STARS EN13</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 12</td>
<td>Governance structures on environmental sustainability</td>
<td>GRI G4-34</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 13</td>
<td>Frequency of review of sustainability issues by governance body</td>
<td>GRI G4-47</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 14</td>
<td>Sustainability planning (i.e. comprehensive strategic plans in place covering a variety of topics, and including measurable goals and objectives)</td>
<td>STARS PA2</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O 15</td>
<td>Reporting period and reporting cycle</td>
<td>GRI G4-28, G4-30</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix F
Prioritization Tool Example
The prioritization tool allows decision-makers to score and weight action options against criteria. The outputs indicate the priority level of each option. This appendix includes one example of the tool use; it is a prototype presentation, not a true analysis. The tool is a multi-criteria analysis spreadsheet developed specifically for VBE.

**Decision-making tool page 1: Criteria and weighting (importance) assignment.**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of interest from stakeholders</td>
<td>5</td>
</tr>
<tr>
<td>Responds to a sustainability KRA</td>
<td>3</td>
</tr>
<tr>
<td>Advances target, indicator or KRA</td>
<td>4</td>
</tr>
<tr>
<td>Strong link to curriculum or education</td>
<td>3</td>
</tr>
<tr>
<td>Staff time</td>
<td>5</td>
</tr>
<tr>
<td>Expertise</td>
<td>2</td>
</tr>
<tr>
<td>Financial resources</td>
<td>5</td>
</tr>
<tr>
<td>Probability of partnerships</td>
<td>2</td>
</tr>
<tr>
<td>Relationship with other VSB strategic plan objectives</td>
<td>5</td>
</tr>
<tr>
<td>Enhances sustainability literacy/citizenship</td>
<td>2</td>
</tr>
<tr>
<td>Impact on long-term operating costs</td>
<td>5</td>
</tr>
<tr>
<td>Ability to maintain/operate</td>
<td>4</td>
</tr>
<tr>
<td>Connects to Greenest City goals and targets</td>
<td>2</td>
</tr>
<tr>
<td>Connects to provincial sustainability objectives</td>
<td>1</td>
</tr>
<tr>
<td>Has a symbolic or catalytic effect</td>
<td>4</td>
</tr>
<tr>
<td>Scalable within VBE and beyond</td>
<td>4</td>
</tr>
</tbody>
</table>

Guide

1. **Rate each of the actions or strategies in the prioritisation tab using a drop down scale of 1-5 (blue boxes).**
2. **Weight each of the criteria using a drop down scale of 0-5 on the results tab (yellow boxes).**

Note: If criteria are irrelevant, select 0.
In this example (it is not a true analysis), 'encourage sustainable design' is the most important action based on the criteria and weighting chosen (page 1).

### Prioritization Outputs

| Encourage sustainable design | Sustainability included in all school plans | Establish a sustainability coordinator at each school | Sustainability procurement strategy | Develop partnerships with City of Vancouver and Vancouver Parks Board | Community school teams focus on environmental sustainability | Clarify the roles and responsibilities of the sustainability team | Integrate sustainability training into new teacher orientation | Support and incent a green team at each school | Extensive zero waste infrastructure and collection capacity at all schools | Develop school design principles | Plant more trees in play areas to provide shade, and cultivate biodiversity in the urban forest | Bicycle riding training and road skills | Develop school gardens, outdoor learning spaces, natural play areas, pollinator/habitat focused spaces | Strive for LEED Gold or equivalent for sustainability | Heating system energy efficiency upgrades | Transportation demand management program | Reimburse sustainable transportation choices for staff | Develop contractor standards, guidelines for new and renovated space | Provide sustainable transportation infrastructure and incentives at all schools and workplaces | Lighting upgrades | Add an educator to the Sustainability Team | Purchase electric vehicles | Provide incentives for employees to use active transportation and public transit | Renew printing fleet with larger, more energy and paper efficient machines | Audit indoor and outdoor water uses |

### Level of interest from stakeholders
- Strong link to curriculum or education
- Financial resources
- Relationship with other VBE strategic plan objectives
- Ability to maintain/operate
- Has a symbolic or catalytic effect

### Responds to a sustainability KRA
- Responds to a sustainability KRA
- Staff time
- Probability of partnerships
- Enhances sustainability leadership
- Connects to Greenest City goals and targets
- Scalable within VBE and beyond

### Advances target, indicator or KRA
- Advances target, indicator or KRA
- Expertise
- Probability of partnerships
- Impact on long-term operating costs
- Connects to provincial sustainability objectives
Appendix G
Sustainability Aspirational Objectives
Thinking Big: Aspirational Objectives for the Greenest, Most Sustainable School Board in North America

The environmental sustainability audit has made 11 high-level recommendations. In addition to these, a list of more detailed aspirational objectives has been compiled in the table below, inspired by the collection of comparisons found in studying other school districts, institutions and sustainability frameworks. The list of such potential targets is virtually unlimited and only the most relevant examples have been included here. Targets are most useful when assigned numerical values and completion dates, which is an exercise for VBE, should VBE commit to targets like these.

<table>
<thead>
<tr>
<th>Key Result Area</th>
<th>Aspirational Target</th>
<th>Comparator/Inspiration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Education &amp; Ecoliteracy</td>
<td>Every student plants at least one tree a year.</td>
<td>City of Vancouver</td>
</tr>
<tr>
<td></td>
<td>The level of ecoliteracy amongst students doubles.</td>
<td>San Francisco Unified School District. UBC. Richmond School District.</td>
</tr>
<tr>
<td></td>
<td>80% of grade 12 graduates sign a graduation sustainability charter committing them to sustainable behaviours.</td>
<td>UBC Sustainability Charter</td>
</tr>
<tr>
<td>2. Organizational Culture</td>
<td>Job descriptions, old and new, all contain sustainability responsibilities.</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Every school has a green team.</td>
<td>Delta School Board</td>
</tr>
<tr>
<td>3. Energy &amp; Climate Change</td>
<td>VBE establishes periodic carbon reduction targets that are achieved until the organization produces no GHG emissions.</td>
<td>Province of BC</td>
</tr>
<tr>
<td></td>
<td>10% of VBE’s energy needs are generated on-site by clean and renewable energy.</td>
<td>Merton Rule (UK municipal policy)</td>
</tr>
<tr>
<td>4. Resource &amp; Waste Management</td>
<td>Red listed materials from the Living Building Challenge are banned from construction.</td>
<td>Living Building Challenge</td>
</tr>
<tr>
<td></td>
<td>VBE diverts 90% of all waste from landfills.</td>
<td>San Francisco Board of Education. Richmond School District.</td>
</tr>
<tr>
<td>5. Transportation</td>
<td>90% of trips to and from school are by walking, cycling or transit.</td>
<td>San Francisco Unified School District.</td>
</tr>
<tr>
<td></td>
<td>No more than 10% of the land owned by VBE is impervious.</td>
<td>Sustainable Sites Initiative (SSI). San Francisco Unified School District.</td>
</tr>
<tr>
<td>7. Procurement and Supply Chain Management</td>
<td>VBE purchases no wood or wood products from old growth forests.</td>
<td>Forestry Stewardship Council (FSC). Richmond School District.</td>
</tr>
</tbody>
</table>
DATE: May 30, 2014
TO: Management Coordinating Committee (Committee I)
FROM: Scott Robinson, Associate Superintendent
RE: Cross Boundary Policy Review

Staff is in the process of finalizing a report to the Committee for the June 4, 2014 meeting. The report will be emailed to Committee members and representatives as well as posted on the district’s website on Monday, June 2, 2014 for review in advance of the meeting.
June 2, 2014

To: Management Coordinating Committee (Committee One)

From: Senior Management Team

Re: Cross Boundary Update

INTRODUCTION:

This report is for the information of trustees and committee members. No action is required on the part of the Board at this time.

BACKGROUND:

At the April 22nd meeting of the Board, the following recommendation was approved:

THAT the motion to “support senior staff to immediately allow school administrators to review cross-boundary students in their schools; and if space is needed for students residing in their catchment, advise those cross-boundary parents that their sons/daughters will be enrolled in their home school September 2014” be referred to the Management Coordinating Committee meeting in June 2014.

The referral of this issue to Committee One is aligned with the work being done by staff on this topic due to the recognition that several issues relating to current policies and practice regarding cross boundary acceptance require clarification. Unclear and ambiguous policy language has led to misperceptions about intent and implementation of policy as well as inconsistent practice across the district, and therefore requires clarification and possible revision.

ISSUE # ONE:

Status of students previously approved through cross boundary process:

Several schools are at or over capacity and some have not been able to accommodate a number of incoming in-catchment students who wish to register at the school (See Appendix A). There are existing students in these schools who were previously approved to attend the school through the cross boundary process. As indicated above, it has been proposed that these students be required to return to their home school in the event that space is required in their existing school for students who live in the catchment but do not yet attend the school.

The issue of insufficient space to accommodate in-catchment students in some schools is a relatively new phenomenon, which has arisen as a result of the recent rapid changes in demographics and enrolment patterns particularly in the downtown peninsula and south False
Creek. Because the district has been in an era of declining enrolment for a number of years, it has been very rare for in-catchment students to not be able to get into their catchment school. Faster than predicted enrolment increases in these areas, however, have resulted in challenges pertaining to availability of space.

RELEVANT LEGISLATION AND POLICY:

1. BC School Act:

Section 74 (1)(6) of the BC School Act (see Appendix B) states:

If a board determines that space and facilities are available at the school in which the educational program is made available, a person whose application was received by the board by the date established under subsection (4) is entitled to enroll in that educational program in the following descending order or priority:

a) a catchment area child who, in the previous school year, attended the school at which the educational program is made available;

b) a catchment area child;

c) a non-catchment area child;

d) a non-school district child.

Section 74.1 (6.1) (b) of the Act then, however, goes on to state that:

Despite subsection (6), a board may, subject to subsection (6.2), give priority to...

(b) a non-catchment area child or a non-school district child as if the child were a child described in subsection (6) (a) or (b) if the child, in the previous school year,

(i) attended the school at which the educational program is made available,...

(c) a sibling of a child described in subsection (6)(a) or paragraph (b)(i) of this subsection as if the sibling were a child described in subsection (6)(a) or (b) if the sibling does not attend school or attends a different school at the time the application under subsection (4) is made.

Essentially, the School Act gives school boards the authority to establish certain priorities for enrollment of students through policy, and in particular, in relation to students who attended the school the previous year and siblings of such students.

2. VBE Board Policy:

There are two board policies that contain language relevant to this discussion.

Policy JECC — Student Admission and School Choice and the associated regulation JECC-R: (see Appendix C)

This policy describes the process for determination of availability of space and facilities at any given school. Acceptance of any new students, either in-catchment or through the cross boundary process, is contingent on this prior determination of available space. Section 2.4 of this policy references the concept of 'continuing students', which is a key factor in this discussion. According to JECC-R section 1.2, A “continuing student” means a school age
A student in attendance at the school during the previous school year who is expected to continue in the educational program for the succeeding school year, but does not include:

1. A non-school district child who attended during the previous school year on a discretionary acceptance, unless approved for renewal by the school principal or superintendent's delegate,
2. A child who withdraws or transfers from the school or educational program before the end of the previous school year; or
3. A student who attended during the previous year on a disciplinary transfer

Therefore, according to this section of the policy, students who reside within the boundaries of the Vancouver School District who attended the school during the previous year and had been approved in the past on a cross boundary transfer, are not included in the exceptions listed above. Accordingly, they retain the same ‘continuing student’ status as in-catchment students. This is a critical distinction to make with respect to the proposal to require students who have been previously approved for cross-boundary permission to leave the school in order to accommodate in-catchment students. Under the current policy, the only students who could technically be asked to return to their home school are those who do not live within the Vancouver School District.

Section 2.4 of the policy then goes on to state that;

"After enrolment of continuing students, if the requisite space and facilities are determined to be available, cross-boundary applications and applications from new students will be accepted in the following priority order..."

- students enrolled as residents during the current school year or accepted on cross-boundary application during the previous year;
- siblings (when other siblings are attending the school concurrently);
- students enrolled in on-site child care programs, or those whose child care needs are provided within the attendance area;
- students whose residence falls within the attendance area of other Vancouver schools; and
- students whose residence falls outside the Vancouver School District

Some of the language contained in this section is somewhat ambiguous, as technically, according to the definition of a ‘continuing’ student, students accepted on cross boundary applications the previous year have already been accommodated. The relevant language in this clause of the policy is the term "After enrolment of continuing students", as this reinforces the idea that no new students will be accommodated in a school until all continuing students have been accommodated.

Policy JC — School Attendance Areas (Boundaries) and the associated regulation JC-R (see Appendix D)

This policy is intended to describe the provisions of the cross-boundary process. It should be noted that JC applies only if, through the application of policy JECC, it has been determined that there is available space after all continuing students have been placed. If that determination is made, then the following order of priority is stated in the policy under the section on Cross-Boundary Provisions:
"...if the Board determines that available space and facilities are available at the school in which the educational program is made available, a person whose application was received by the Board by the date established under subsection (4) is entitled to enroll in that educational program."

"...in order to address the educational interests and needs of its students, the Board's policy on attendance areas provides for the following in order of priority:

1. a catchment area child (students who reside within a school's attendance area)
2. a non-catchment area child (students who reside outside a school's attendance area but within the Vancouver School District);
3. a non-school district child (students who reside outside the Vancouver School District)."

This policy language may have led to a further sense of confusion about the relative priority of in-catchment students over existing cross-boundary students, particularly when one also considers the following excerpt from Policy JC-R:

"...Continuation of cross-boundary status will be reviewed in subsequent years according to the priorities listed in the Student Admission and School Choice Policy."

This section of the policy may have been interpreted as a requirement to annually review whether or not students previously approved for cross-boundary status will be allowed to remain in the school for the upcoming school year. In actual fact, if one refers to the Student Admission and School Choice Policy (JECC) as indicated earlier in the report, this is not the case.

Metro Vancouver District Policy Comparison:

Staff completed a survey of metro area school district policy language with respect to the issue of 'continuation' of students previously accepted through the cross boundary process. Of the six districts surveyed (Surrey, Coquitlam, Burnaby, Richmond, West Vancouver and North Vancouver) none appear to have language that requires the displacement of existing cross boundary students in order to accommodate incoming in-catchment students. Where there is a capacity issue in a school, the district has responsibility for locating a placement for the incoming in-catchment student in the closest school where there is available space. It appears that the prevailing philosophy is that once a student moves into a school, he or she becomes a permanent member of that school community.

Summary of School Act and Relevant Policy:

As indicated above, current policy language relating to enrolment management is ambiguous and difficult to interpret, which has resulted in confusion and inconsistent practice across the district. Despite the ambiguous language, however, it is clear according to Board legal counsel that current VBE policy does not include the provision to direct students who were approved in the past to attend a school through the cross-boundary process to return to their home school, unless they do not live within the boundaries of the Vancouver School District. Students who have been approved through the cross-boundary process currently have essentially the same rights to continue to attend their school as those who live in the catchment. Subsequently, in order for the District to proceed with the motion described earlier in this report, a policy change would be required.
OPTIONS FOR CONSIDERATION REGARDING CONTINUATION OF STUDENTS:

<table>
<thead>
<tr>
<th>OPTION</th>
<th>IMPLICATIONS</th>
</tr>
</thead>
</table>
| A) Adhere to current policy. Students previously accepted through the cross boundary process will remain in their current schools. Revise ambiguous and unclear language in policy. | • In some schools, the District will continue to be unable to accommodate some incoming students who live in the catchment. Enrolment management strategies discussed later in this report will need to continue to be implemented.  
• Parents of in-catchment students not able to be placed in their neighbourhood school will likely express significant concern as some have been under the impression they were guaranteed a spot in their neighbourhood school  
• Spaces for the incoming in-catchment students will need to be found, either in adjacent schools or through the district taking steps to increase capacity at the home school  
• Acceptance of further cross-boundary students will need to be either eliminated or restricted |
| B) Revise the current policy to allow for the District to require students who do not live in a catchment to return to their home catchment school. | • Incoming students who live in the catchment would be more likely to be provided with a space in their home school  
• Parents of the displaced students would likely express significant concern as they have been under the impression that their child was guaranteed a spot in the school he or she was attending  
• In some instances, it is possible that there would be insufficient capacity at the catchment school to accommodate displaced cross-boundary students. An ‘overflow’ effect could occur. In other schools, this would not be an issue.  
• Philosophically, the Vancouver School District would not be in alignment with other metro school districts with respect to the issue of continuity. |

ISSUE # TWO:

Tie-breaking when applications have the same priority order:

Currently, when parents submit an application to register or apply for cross boundary approval, the application is supposed to be date and time stamped in order to address the eventuality that two or more equal applications are received and a ‘tie-breaking’ mechanism needs to be implemented.

Section 3 of Policy JECC states “When applications made within time have the same priority (after application of any permitted sibling preference), priority as between them will be determined by time and date of application unless a determination is made by the board, the superintendent or the superintendent’s designate to determine by lot.”
Currently, it is apparent that there is some confusion and potential for lack of consistency and human error regarding the date/time stamping process as applications are received by a variety of staff members across 92 elementary schools and 18 secondary schools. Some parents have also expressed that the process gives an unfair advantage to those parents who have the ability to submit their applications as soon as the application window opens. It is therefore recommended that consideration be given to the concept of a lottery, which would replace the time/stamp process as the ‘tie-breaking’ mechanism in situations where demand exceeds availability. Currently, placement in Kindergarten Choice Programs is determined through a lottery in schools where more demand exists than availability.

OPTIONS FOR CONSIDERATION REGARDING TIE-BREAKING:

<table>
<thead>
<tr>
<th>OPTION</th>
<th>IMPLICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Continue with current practice – schools date and time stamp each application and in circumstances where a ‘tie’ exists, decisions are made based on the time and date of the applications</td>
<td>• Some parents argue that not everyone has the ability to immediately submit an application upon the application window opening and therefore some families are given an unfair advantage over others • Given the size of the district and the different circumstances in each school, significant potential for inconsistency and human error exists in this system • Some parents argue that if they make the effort to submit an early application, they should benefit from that effort – this process supports that view</td>
</tr>
<tr>
<td>B) Change practice as is allowed under the current policy (reference to determination by lot) to implement a lottery system that would be implemented in schools where demand exceeds capacity. Priorities listed in current policy would continue to exist (i.e. siblings), however the lottery would be implemented in cases where equal status (a tie) still exists</td>
<td>• Some parents argue that if they make the effort to submit an early application they should benefit from that effort – this option does not support that view • Would result in the same chance of a successful application for all families who apply • Would drastically eliminate the potential for confusion and human error that currently exists</td>
</tr>
</tbody>
</table>

ISSUE #THREE:

Rights of siblings of students previously approved through the cross boundary process:

In some schools where capacity has been an issue, a small number of incoming siblings have been denied cross-boundary approval even if their sibling was scheduled to attend the school the following year. In these cases, administrators were directed to take a cautious approach, and if, after all in-catchment students were accommodated there were still spaces available,
these spaces were offered first to siblings of students previously approved for cross boundary status. In the great majority of cases, the sibling has ultimately been accommodated, however in some cases, that decision has not been able to be made until early September when it was certain that all continuing and new in-catchment students had been placed.

Current policy language is somewhat ambiguous with respect to when and if siblings of existing cross boundary students should be approved to attend their older sibling's school through the cross boundary process or even whether they have an automatic right to attend the same school as their siblings. Policy language clarification is required regardless of which option is supported.

OPTIONS FOR CONSIDERATION REGARDING SIBLING PRIORITY:

<table>
<thead>
<tr>
<th>OPTION</th>
<th>IMPLICATIONS</th>
</tr>
</thead>
</table>
| A) Siblings will continue to be given priority status as cross boundary applicants but in instances where there are capacity concerns, students will have to wait until either the end of June or early September to be given approval to attend. This decision would be based on the number of spaces available, historical enrolment patterns, etc. | • Has the potential to increase anxiety for families waiting to hear decision  
• Allows school to ensure adequate space for in-catchment students first  
• Does not guarantee siblings of cross boundary students a placement in the school |
| B) Siblings of students previously approved for cross boundary status will be given the same priority as in-catchment siblings. | • Would eliminate anxiety for parents of siblings  
• Has the potential to exacerbate overcapacity issues in particular schools  
• In some schools, this will likely result in a non-catchment, non-continuing student (sibling) taking the place of an incoming catchment student who does not have a sibling in the school. |

ISSUE # FOUR:

Rights of students to move to a ‘main’ school who were previously approved to attend the associated annex through the cross boundary process:

A degree of ambiguity currently exists with respect to the process of how students move from an annex to a main school if they have been previously approved to attend the annex through the cross boundary process. In some schools, all students who attended the annex have been automatically allowed to attend the main school once they leave the annex. In other schools,
students who do not live in the catchment have been required to apply for cross boundary approval even if they were already approved for cross boundary status at the annex.

Policy JC states that “acceptance of a student at the annex on a cross-boundary placement does not include acceptance at the school to which the annex is administratively attached.”

This policy language appears to have been interpreted in at least two ways at the school level:

1. A student who was previously granted cross boundary approval at an annex cannot move to the main school without applying for cross boundary approval to the main school.

2. A student may, if he or she has reached the final grade in an annex, transfer to the main school without applying for cross boundary approval. The rationale for this interpretation is that the student technically has received cross-boundary status into the catchment, not just the annex. Once he or she completes the final grade at the annex, it follows that he or she would then move to the main school.

Regardless of interpretation of current policy language, it is clear that the lack of consistency in process which results from the lack of clarity in policy needs to be addressed. The following options are proposed for consideration:

**OPTIONS FOR CONSIDERATION REGARDING MOVEMENT FROM ANNEX TO MAIN:**

<table>
<thead>
<tr>
<th>OPTION</th>
<th>IMPLICATIONS</th>
</tr>
</thead>
</table>
| A) Retain current policy language. All cross-boundary students coming from annexes MUST apply for cross boundary status to main schools, regardless of grade level. Adjust policy language to ensure greater clarity. | • Families who currently have at least one sibling in both the annex and main school in a catchment may end up having to have their children attending two ‘main’ schools if the cross boundary application from the annex to the main is not approved  
• May end up with a student in a particular cohort of students not being able to continue with the cohort when they leave the annex and the rest of the cohort continues into the main school.  
• Increase in paperwork for families and schools  
• Allows administrators to moderate the ‘flow’ of students from the annex to the main in the event that capacity is an issue. |
| B) Issue a directive to all schools that students who have reached the final grade at an annex are to be allowed into the following grade level at the main school without cross boundary approval. Adjust policy language to ensure greater clarity. | • Families with a student in both the annex and the main in a catchment will be more likely to experience continuity and will keep their children ‘together’ through their entire elementary experience  
• Less paperwork for families and schools  
• Will make it more challenging for principals |
to manage enrolment in order to ensure appropriate space availability for in-catchment students

- Would require greater clarity in policy language with respect to the "tie-breaking" process to be used should there be inadequate space to accommodate all incoming students from an annex to a main school.

**ENROLMENT MANAGEMENT STRATEGY**

Regardless of the decisions made with respect to cross boundary continuity, what remains clear is the fact that enrolment is going to continue to increase rapidly in some areas of the district and enrolment will need to be projected and managed very carefully. District staff have already taken a number of steps to manage enrolment based on projections, including:

- Identification of schools that are approaching capacity as early as possible*
- Identification and implementation of short and mid-term strategies to mitigate enrolment challenges such as:
  - Conversion of non-enrolling classroom space to enrolling space
  - Limiting or elimination of cross boundary approvals
  - Identification of 'overflow' school sites which can accommodate students who are not able to be accommodated in their neighbourhood school — *this may include limiting or elimination of cross boundary approvals to these sites.*
  - Investigation of creative use of other school sites where there is surplus space (i.e. International Village at Seymour Elementary)
  - Placement of portables on sites (i.e. Fraser Elementary) where physical space exists and financial resources are available to do so.
- Identification of longer-term strategies to mitigate enrolment — application for funding for new schools

*The district has continually refined its enrolment projection process and is able, in most cases to predict with some accuracy when a school will approach or reach capacity. Occasionally, enrolment increases more rapidly than was projected, which can result in sudden space challenges, but in most cases, the district has the ability to plan for and manage appropriately capacity issues.

Over the past two years, staff have refined the process in which a school is identified as approaching its capacity and requires careful enrolment management. In these cases, principals are contacted and given direction with respect to either limiting or eliminating cross-boundary approvals. Directors of Instruction work closely with principals in these circumstances both to ensure consistency amongst schools and to develop and implement communication with parents.
Parent Communication Strategy

Part of the refinement of this process has been earlier communication with future parents of the school who are likely to be impacted by a capacity issue. Although parents will likely never be happy to be informed that there may not be a space for their child in their catchment school, it is the district's responsibility to inform parents of this possibility as soon as possible so that parents of incoming students are not 'surprised' when they attempt to register during the Kindergarten registration process. Parents need to be made aware of the options available to them as early as possible. Staff will continue to refine this process.

In addition, it is clear that current policies are unclear and difficult to understand. Part of the policy revision will need to include clarification and simplification of language. Once policy revisions have been completed, it is recommended that where possible, policy references be included in relevant forms for parents so that confusion can be reduced and parents are clear on the implications of choices they make.

CONSULTATION

A working group that includes representatives from DPAC, elementary and secondary administrators, and district staff has met several times in order to identify and clarify issues relating to the cross boundary process and policy. District staff have made tentative arrangements to attend the upcoming meeting of DPAC executive in order to have a broader discussion about the implications of each of the options presented in this report. Results of that consultation will be included in the next report brought to Committee One in September.

PROPOSED TIMELINE

| April-May | • Meetings with stakeholder representatives from working group  
|           | • Analysis of current policy and School Act  
|           | • Analysis of other district policies  
|           | • Development of options for consideration  
|           | • Initial consultation with legal counsel |
| June 4    | • Preliminary report to Committee One for initial feedback |
| June      | • Continued consultation with stakeholder groups  
|           | • Feedback from stakeholder groups provided to district staff and incorporated into draft policy |
| July-August | • Draft policy to legal counsel  
|           | • Draft communication plan developed |
| September 3 | • Draft policy with feedback incorporated brought to Committee One for final adjustments and referral to Board |
| Early September | • Draft policy to legal counsel for final approval |
| Mid-September | • Proposed policy revisions to Board for approval |
| Late September | • Communication and Implementation of revised policy |

**CONCLUSION**

It is clear that current policies regarding school attendance and admission require revision in order to reduce confusion and clarify processes for parents and school personnel. Each of the issues contained in this report requires careful consideration before any decisions are made. Stakeholder groups are invited to take the time to consider the options presented in the report and provide questions and feedback regarding these options by the beginning of July. *Staff will* then incorporate those suggestions into the revised policies and bring an update to Committee One in early September for further discussion and possible referral to the Board for approval.
Appendix A

Schools Currently At or Above Capacity for the 2014-15 School Year

Currently, the following schools have reached their capacity and have required enrolment management:

<table>
<thead>
<tr>
<th>School</th>
<th>At capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lord Byng Secondary</td>
<td>At capacity, Cross boundary applications are not being approved, A District program has been moved in order to create more enrolling classroom space</td>
</tr>
<tr>
<td>Elsie Roy Elementary</td>
<td>Has experienced capacity issues for several years, Unable to accommodate all in-catchment enrolment for past two years and currently has a wait list with an overflow school identified (Lord Roberts) to accommodate students on the wait list, Cross boundary enrolment has been severely restricted (siblings)</td>
</tr>
<tr>
<td>Fraser Elementary</td>
<td>Will be over capacity for the 2014-15 school year, Cross boundary approvals for the past two years have been limited to siblings and a very small number of students with specific special needs, Placement of portables on-site in the summer of 2014 will provide sufficient space to accommodate all projected in-catchment enrolment for 2014-15 and 2015-16 school years</td>
</tr>
<tr>
<td>Roberts Annex</td>
<td>Although the Annex has reached capacity, it technically shares the same catchment as Lord Roberts Main, and therefore all students who live in the catchment have been accommodated within their catchment at the main school</td>
</tr>
<tr>
<td>McBride Annex</td>
<td>Although the Annex has reached capacity, it technically shares the same catchment as McBride Main, and therefore all students who live in the catchment have been accommodated within their catchment at the main school</td>
</tr>
<tr>
<td>Dickens Main</td>
<td>Will be over capacity for the 2014-15 school year, Non-enrolling space has been converted to enrolling space in order to accommodate enrolment, Cross boundary approvals have been restricted</td>
</tr>
<tr>
<td>Hudson Elementary</td>
<td>Will be over capacity for the 2014-15 school year, Non-enrolling space has been converted to enrolling space in order to accommodate enrolment, Cross boundary approvals have been restricted</td>
</tr>
</tbody>
</table>
Carnavon

- Will be over capacity for the 2014-15 school year
- Non-enrolling space has been converted to enrolling space in order to accommodate enrolment
- Cross boundary approvals have been restricted

### Schools Being Monitored for Further Enrolment Management

<table>
<thead>
<tr>
<th>School</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edith Cavell</td>
<td>Cross boundary approvals have been restricted</td>
</tr>
<tr>
<td>False Creek</td>
<td>Cross boundary approvals have been restricted</td>
</tr>
<tr>
<td>Emily Carr</td>
<td>Being monitored</td>
</tr>
</tbody>
</table>
74.1 (1) In this section:
"catchment area child" means a person
(a) of school age, and
(b) resident in the catchment area of the school;
"non-catchment area child" means a person
(a) of school age,
(b) resident in the school district, and
(c) not resident in the catchment area of the school;
"non-school district child" means a person
(a) of school age,
(b) resident in British Columbia, and
(c) not resident in the school district;
"previous school year" means the school year previous to the school year for which the person is applying to enroll in an educational program;
"school district child" means a catchment area child or a non-catchment area child.

(2) A board must enroll all persons who exercise their entitlement to enroll in an educational program under section 2 (1).

(3) A board may refuse to enroll a non-school district child under section 2 (2) if the child is
(a) a student suspended by a board under section 85 (2) (d), or
(b) a student to whom a board has refused to offer an educational program under section 85 (3).

(4) A board
(a) for each school year, must establish a date by which an application to enroll a person in an educational program must be received by the board for the purposes of this section,
(b) in respect of the date referred to in paragraph (a), may establish different dates for different grades, educational programs, schools or children defined in subsection (1), and
(c) may dispense with the application referred to in paragraph (a) and establish an alternative procedure to enroll a school district child who was enrolled in an educational program in the school district in the previous school year.

(5) If a board establishes an alternative application procedure under subsection (4) (c), the enrollment of a school district child remains subject to the priorities set out in this section.

(6) If a board determines that space and facilities are available at the school in
which the educational program is made available, a person whose application was received by the board by the date established under subsection (4) is entitled to enroll in that educational program in the following descending order or priority:

(a) a catchment area child who, in the previous school year, attended the school at which the educational program is made available;
(b) a catchment area child;
(c) a non-catchment area child;
(d) a non-school district child.

(6.1) Despite subsection (6), a board may, subject to subsection (6.2), give priority to
(a) a catchment area child as if that child were a child described in subsection (6) (a) if, in the previous school year, the child attended a school from which the board reassigns students progressing through their educational program to the school at which the educational program is made available,
(b) a non-catchment area child or a non-school district child as if the child were a child described in subsection (6) (a) or (b) if the child, in the previous school year,
(i) attended the school at which the educational program is made available, or
(ii) attended a school from which the board reassigns students progressing through their educational program to the school at which the educational program is made available, and
(c) a sibling of a child described in subsection (6) (a) or paragraph (b) (i) of this subsection as if the sibling were a child described in subsection (6) (a) or (b) if the sibling does not attend school or attends a different school at the time the application under subsection (4) is made.

(6.2) The board must establish rules governing the exercise of its discretion under subsection (6.1) and must make those rules publicly available.

(7) If a board determines that space and facilities are available at the school in which the educational program is made available, a non-school district child referred to in subsection (6) is entitled to enroll in an educational program in priority to a school district child whose application was received by the board after the date established under subsection (4).

(8) A board must establish rules for determining priority between 2 or more persons having the same priority under this section.

(9) For the purposes of this section, a person's residency is determined as of the date the application to enroll the person is submitted to the board.
1. GUIDING PRINCIPLES

Student admission in the Vancouver School District is to be guided by the following principles:

Access to neighbourhood school: The admission process should maximize the number of students able to attend their catchment area school in accordance with their wishes.

Choice: The admission process should maximize the student's and parent's ability to choose the school and educational program which best meets the student's educational needs.

Certainty, stability, continuity: The admission process should support certainty, stability and continuity for students and families. Siblings will be admitted to the same school wherever possible, subject to the provisions of the School Act and the wishes of the family.

Efficient resource allocation: The admission process should enable school and district staff to plan the allocation of space and instructional resources to best accommodate demand and minimize adjustments required at the beginning of the school year.

The Board will endeavor to provide programs that meet the interests and needs of district students.

2. DETERMINATION OF AVAILABLE SPACE AND FACILITIES

Section 74.1 of the School Act establishes priorities for enrolment to apply if the board determines that space and facilities are available in a school.

2.1 For purposes of section 74.1(6) and (7) of the School Act, space and facilities are available in a school to enroll an applicant if there is capacity to provide the applicant with an educational program appropriate to the applicant's needs, taking into account both physical and educational resources, after reasonable enrollment projections have been made to allow for accommodation of continuing students, district programs located in the school, and (if applicable) a kindergarten program adequate to accommodate the projected enrolment of catchment area children.

2.2 The Board of Trustees delegates to the Superintendent of Schools or his or her designate, the decisions whether space and facilities are available in individual schools and educational programs for purposes of section 74.1(6) and (7) of the School Act, in accordance with paragraphs 2.1 and 2.3.

2.3 Decisions will be made in consultation with the principal of the affected school and will be based on program capacity, including consideration of the following factors:

- the capacity of the school as defined by the Planning and Facilities Department
- staff assigned to a school by the district
- the physical space in which instructional programs operate in the school
- the ability of the school to provide appropriate educational programs for the applicant and other students
- the needs of other programs located in the school

2.4 After enrolment of continuing students, if the requisite space and facilities are determined to be available, cross-boundary applications and applications from new students will be accepted in the following priority order. This priority order does not apply to district alternative programs:

- students enrolled as residents during the current school year or accepted on a cross-boundary application during the previous year;
- siblings (when other siblings are attending the school concurrently);
- students enrolled in on-site child care programs, or whose child care needs are provided within the attendance area;
- students whose residence falls within the attendance areas of other Vancouver schools; and
- students whose residence falls outside the Vancouver School District

2.5 If space and facilities are inadequate to accommodate all continuing students, continuing students will be re-enrolled in the following descending order of priority: (i) continuing catchment area student; (ii) continuing non-catchment area student; (iii) continuing non-school district student.

2.6 Waitlists will be established for those cross-boundary students not accepted, to be maintained until September 30.
2.7 In-catchment students who are waitlisted for their catchment school will be maintained on a wait-list, and will be offered the opportunity to return to their catchment school as space arises.

3. TIE-BREAKING

When applications made within time have the same priority (after application of any permitted sibling preference), priority as between them will be determined by time and date of application unless a determination is made by the board, the superintendent or the superintendent’s designate to determine priority by lot.

4. ALTERNATE ENROLMENT PROCESS FOR CONTINUING SCHOOL DISTRICT STUDENTS

Continuing students are not required to apply. They will be automatically enrolled in the applicable educational program or school, subject to space availability and to meeting program requirements, unless transferred or withdrawn.

5. DATES FOR APPLICATIONS TO ENROL AND ENROLMENT

5.1 Before 1st of February in each school year, the board will establish dates for submission of applications to enrol and for enrolment. The board may establish different dates for different grades, educational programs, schools, or categories of applicant.

5.2 Applications received after the deadlines established will be subject to the priority of those applicants who applied within time as subject to the terms outlined in 2.4 and 3.1 of this policy.

6. GUARANTEE OF EDUCATIONAL PROGRAM AND DISTRICT PLACEMENT

6.1 School district children who apply for enrolment in an educational program will be provided with an educational program in the district, unless a parent of the student consents to a placement outside the school district.

6.2 The board believes that the educational interests of most students are best served by attendance at the student’s neighborhood school. The board requires school organizations to be established by June 30 prior to the start of the next school year. These organizations will efficiently and effectively serve the school enrolment and provide for stability and predictability of placements for students.

6.3 After the school organization is established, newly arrived students may be required to attend a school other than the neighborhood school. This district placement may occur if the neighborhood school does not have space within the organization, program capacity, or appropriate physical resources to accommodate the student. A district placement may be required to minimize disruptions to the school and costs to the district.

6.4 The board will place newly arrived students in the nearest school with the appropriate educational program. In catchment students may return to the neighborhood school when space becomes available or will return at the start of the next school year. All students will be treated in a fair and equitable manner with respect to district placements.

7. COMMITMENT

7.1 The district process shall encourage children (if of appropriate age) and their parents to consider jointly the children’s educational needs before requesting an assignment to a school other than the current school or the catchment area school.

7.2 Applicants may apply for more than one school or district alternative program but may only be enrolled in one. When applicant is offered and accepts enrolment in an educational program (in or out of the school district), applications for all other programs become invalid.

7.3 The superintendent or designate is authorized to enter into reciprocal agreements with other school districts to review wait lists and enrolment information in order to enforce this policy.

8. PROGRAM REQUIREMENTS

Applicants for enrolment must meet all program requirements for the requested educational program and will be subject to any selection process established for that program.

9. DISCRETIONAL ACCEPTANCE: SUSPENDED OR EXPELLED NON-SCHOOL DISTRICT STUDENTS

9.1 Enrolment applications from non-school district children may be refused if the child:

- is under suspension from a BC public school or school district, or
- has been refused an educational program by a BC public school board under section 85(3) of the School Act for refusing to comply with the code of conduct and other rules and policies of the board or has failed to apply himself or herself to his or her studies.

9.2 Such applications will be referred to the superintendent or designate for a decision on admission. Admissions may be made subject to terms and conditions. A student who has been admitted under this section is not entitled to the status of a continuing student in the following year unless approved by the school principal or superintendent’s designate.

10. COMMUNICATION
Application periods and enrolment dates will be communicated to the school communities and to the community at large and may also be communicated to other communities within and outside the school district.

11. TRANSPORTATION

The board does not intend to extend transportation services or assistance to students attending outside their catchment areas by choice. When students are placed in schools outside their neighborhood school because of district placement, they may be entitled to have their public bus transportation paid for by their school (with the school receiving reimbursement from the board) if one of the following circumstances exists:

• The walking distance by the nearest passable road from the student’s home to the school where the student has been placed is excessive for his/her age and grade.
• The distance from the student’s home to the school that they have been placed is not excessive, but the school principal feels that public bus transportation should be provided for this student due to special circumstances (i.e. hardship issues).

DMT Responsibility: AS

Legal References:
School Act, Secs. 74.1, 2.1, 2.3, 85(3)

Cross References:
JC: School Attendance Areas (Boundaries) and subcodes; IGBHA: District Alternative School Programs and subcodes
Definitions

1.1 "Catchment area child" means a person
   1. of school age, and
   2. resident in the catchment area of the school

1.2 "Continuing student" means a school age student in attendance at the school during the previous school year who is expected to continue in the educational program for the succeeding year, but does not include:
   1. a non-school district child who attended during the previous school year on a discretionary acceptance, unless approved for renewal by the school principal or superintendent's delegate,
   2. a child who withdraws or transfers from the school or educational program before the end of the previous school year; or
   3. a student who attended during the previous year on a disciplinary transfer.

1.3 "District alternative programs" are as specified in the district's policy on programs of choice (File: IGBHA). For district alternative programs the district's boundaries constitute the catchment boundary.

1.4 "Non-catchment area child" means a person
   1. of school age,
   2. resident in the school district and
   3. not resident in the catchment area of the school

1.5 "Non-school district child" means a person
   1. of school age,
   2. resident in British Columbia, and
   3. not resident in the school district.

1.6 "Sibling". For the purpose of this policy a sibling shall refer to only those siblings attending an educational program in a school concurrently.

1.7 "Parent" includes a guardian of the person appointed by court order or under the will of a deceased parent, and does not include a non-custodial parent.

1.8 "Place of residence": For purposes of this policy, the student's residence shall refer to the legal address of the dwelling in which the parent and/or legal guardian maintains his/her home and where the student ordinarily resides.

1.9 "Previous school year" means the school year previous to the school year for which the person is applying to enroll in an educational program.

1.10 "School district child" means a catchment area child or a non-catchment area child.

1.11 "Cross-boundary" is a school-age student or child applying to attend a school other than the catchment school, by request.

DMT Responsibility: AS-J

Legal References:
School Act, Secs 74.1, 2.1, 2.3, 3
Cross References: JC: School Attendance Areas (Boundaries) and subcodes IGBHA: District Alternative School Programs and subcodes
Adopted Date: 1 of 2
SCHOOL CATCHMENT BOUNDARIES GUIDING PRINCIPLES

Under the School Act section 75.1 (1) the Board of School Trustees (the Board) must establish a catchment area for each school in the district. The Board further has the duty, after considering the recommendations of the Superintendent of Schools, to assign students to various schools in the school district and the power to divide the district into attendance areas for the purpose of assigning students to various schools (School Act, Part 6, Div 2, Sec. 75(4) and Sec. 85). The attendance areas are defined by the Board and are subject to periodic review as indicated in 75.1 (2).

Guiding principles which serve as the foundation for the development and review of school catchment boundaries include:

- balance the catchment student population with the capacity of a given school;
- regular enrolling students should attend their at home in-catchment school. Cross boundary enrollment should be administered according to the provisions contained within the School Attendance Area Policy and Student Admission and School Choice Policy (JECC); and
- when school catchment boundaries are revised, existing students have the option to continue attendance at their current school (grandparent provision).

In accordance with the guiding principles, consideration to specific criteria will be given in the revision of catchment boundaries. These criteria include, and are not limited to, family of schools transition, walking distance, major roads, physical terrain, public transit routes and infrastructure and proximity of schools to one another.

CROSS-BOUNDARY PROVISIONS

The Board of School Trustees (the Board) believes the neighbourhood school is of prime importance in the delivery of educational services. The neighbourhood school is entrusted to ensure quality instruction and strong programs in all prescribed curriculum areas. Neighbourhood schools provide a sound education foundation by addressing the needs and wishes of most students and their parents through their curricular program. The staff, administration, parents and students will work cooperatively to develop foci to meet the diverse needs and interests of students at neighbourhood schools. The Board supports such initiatives and recognizes the goals and foci of a neighbourhood school may change over time.

The School Act (Part 2, Div. 1, Sec. 2) provides that a person of school age and resident in a school district is entitled to enroll in an educational program provided by the board of that school district. Under the School Act Sec. 74.1 (2) the Board must enroll all persons who exercise their entitlement to enroll in an educational program under Sec 2 (1) and the Board must establish a date by which an application to enroll a person in an educational program as stipulated by Sec. 74.1 (4).

While parents are encouraged to enrol children in their neighborhood schools, Sec. 74.1 (6) states that if the board determines that space and facilities are available at the school in which the educational program is made available, a person whose application was received by the Board by the date established under subsection (4) is entitled to enrol in that educational program.

In order to address the educational interests and needs of its students, the Board=s policy on attendance areas provides for the following in order of priority:

1. a catchment area child (students who reside within a school=s attendance area);
2. a non-catchment area child (students who reside outside a school=s attendance area but within the Vancouver School district);
3. a non-school district child (students who reside outside the Vancouver School District).

As outlined in the School Act, the Board believes that it is important to maintain the relationship between residential location and school catchment areas. However, following the School Act, students may attend a school outside their normal attendance area upon acceptance of a cross-boundary application, provided that suitable programs, staff, space, and facilities are available at the school requested.

Maximum student enrolment limits will be set according to the capacity of each school and will be approved by the Board=s Senior Management Team. Principals will limit acceptance of cross-boundary requests as not to exceed these limits. Elementary and secondary schools may be required to provide space for district classes and should limit cross-boundary enrolments accordingly.
Suitable proof of residence will be required by the school administrator or designate. The provision of false information to the school may lead to transfer of the student(s).

Cross-Boundary application forms are obtainable from any Vancouver school and must be completed by the parent and/or guardian. Completed forms must be submitted to the principals of the schools where enrolment is requested prior to March 1st of the current school year. All applications will be date and time stamped accordingly upon submission. The principals of the schools where enrollment is requested will make all final decisions regarding school enrollment in consideration of priority order, program suitability, staff, space and facilities. Notification of cross-boundary acceptance must be provided by the administrator to the parent and/or guardian on March 31st.

Section 74.1 (7) stipulates that a non-school district child is entitled to enrol in an educational program in priority to a school district child whose application was received after the date established by the board. Therefore a non-catchment child who is accepted cross-boundary by March 31 cannot be bumped out of this space by a catchment area child registered after March 31 for the following school year.

STUDENTS WHO RESIDE WITHIN A SCHOOL’S ATTENDANCE AREA

Each student resident in an attendance area has the prior right to be accommodated in his/her neighbourhood school, providing suitable programs and facilities for the student are available.

The student’s residence shall refer to the legal address of the dwelling in which the student maintains his/her home and ordinarily resides.

For the purpose of registration, a student’s residency is determined as of the date the application to enrol is submitted (74.1 (9)). Students who move their place of residence outside the catchment area of the school may apply to remain and be accepted on a cross-boundary application. In these cases, the principal, in consultation with the student and his/her parents and/or guardians, will determine an appropriate date of transfer to their catchment area school up to the end of the current school year according to what is in the best educational interests of the student.

Where students are not residing in a home with their parent and/or legal guardian the district will require detailed information from the parent and/or legal guardian regarding the circumstances surrounding the student’s residency, and regarding the identity of the responsible adults to be contacted for the purpose of day to day school decisions.

Students residing on a boundary street (the street that separates two catchment areas) are entitled to attend the school in whose catchment area they actually reside, as the neighbourhood school.

Students whose guardians are not ordinarily resident in British Columbia, but who wish to enrol in an educational program in the District must apply and register with the Board’s International and Out-of-Province Education Program and must pay the tuition fee charged to International and Out-of-Providence students. This requirement applies regardless of the citizenship status of the guardians of the student (i.e. Canadian citizens or landed immigrants), and regardless of whether the guardians of the student are resident in another Canadian province or a foreign country.

STUDENTS WHO RESIDE OUTSIDE A SCHOOL’S ATTENDANCE AREA

Conditions for Acceptance of Cross-Boundary Students

- Acceptance of a student at an annex on a cross-boundary placement does not include acceptance at the school to which the annex is administratively attached.
- Acceptance of a student at a main school on a cross-boundary placement does not include acceptance at the secondary school in whose attendance area the elementary school is located.
- Students whose families move their place of residence outside of the catchment area of the school that they are currently attending must apply and be accepted on a cross-boundary application.

Priorities for Consideration of Acceptance for and Continuation of Cross-Boundary Students

Subject to the current and future availability of space and resources in the requested school, cross-boundary applications and the continuation of cross-boundary status will be considered by the principal using the following priorities:

1. students enrolled as residents during the current school year or accepted on a cross-boundary application at the school during the previous year;
2. siblings (when other siblings are attending the school concurrently);
3. students enrolled in on-site child care programs, or whose child care needs are provided within the attendance area;
4. students whose residence falls within the attendance areas of other Vancouver schools; and
5. students whose residence falls outside the Vancouver School District.

DMT Responsibility: AS

Legal References:
School Act, Secs. 2, 3, 74.1, 75.1 75(4), 85
Cross References:
JECC: Student Admission and School Choice; JBA: Integration of Exceptional Students; IGH: District Alternate School Programs and subcodes
Adopted Date:
Wednesday December 20, 1989
Revision Date:
Feb 1990
Jun 1992
Sep 1994
Jan 1999
Jun 2000
Mar 2003
JC: School Attendance Areas (Boundaries) http://www.vsb.bc.ca/district-policy/jc-school-attendance-areas...
The provision of cross-boundary options attempts to respond to the specific program needs of individual students within the functional capacity of a school. The following general guidelines provide assistance to school-based procedures for the acceptance of cross-boundary students.

**DEFINITIONS**

**Cross Boundary** - refers to a request for a student to attend a Vancouver school other than the school in the attendance (catchment) area where the parent and/or legal guardian maintains his/her home and where the student ordinarily resides.

**District Alternative Program** - refers to programs to which students who are at risk can apply to and be accepted.

**District Special Program** - refers to programs to which students with special needs can be referred to and placed in.

**District Specified Program** - refers to programs to which student with special interests and talents can apply to and be accepted.

**Capacity (Physical Space)** - refers to a calculation that is based upon the number of classrooms (physical space) available for enrolling purposes and approved classroom enrolment sizes.

**International Student** - refers to a fee paying student studying in a Vancouver school with student authorizations approved by the Canadian government. International students are not considered cross-boundary students or residents.

**Program**

- Regular K–12
- District Program includes District Specified, District Alternative Resource and District Special programs.

**Residence** - The student’s residence shall refer to the legal address of the dwelling in which the student ordinarily resides.

Resident in Priorities for Consideration of Acceptance for and Continuation of Cross-Boundary Students also refers to students registered as residents at the beginning of the school year and who move out of the school’s catchment area at some point before the end of the school year. A youth currently in a Youth Agreement with the Ministry for Children and Families is deemed to be resident in a school district within which the mailing address specified for the youth in agreement is located. (See Section 82 of the School Act).

**Guardianship** - Guardianship is a legal concept governed under the provisions of the Family Relations Act, and other legislation. Normally, the mother and father of child are deemed to be the legal guardians of the child. Transfer of guardianship will occur only under certain limited circumstances as a result of the operation of various legislative provisions, or as a result of a court order. The Board requires formal documentary evidence (e.g., court order) from students or parents who assert that someone other than a child’s mother or father is the legal guardian of the child.

**School Attendance Area** - refers to the geographic region delineated by and contained within boundaries for each school, as approved by the Board. A student is assigned attendance to a particular school (home school) according to the student’s residence. School attendance areas have been established for elementary schools (including annexes) and secondary schools. School attendance areas have also been established for elementary (including annexes) and secondary French Immersion schools. A student seeking to attend a school other than their assigned home school should refer to the Cross Boundary Provisions of the Student Admission and School Choice Policy.

**GUIDELINES**

- Students who move their place of residence outside of the catchment area of the school that they are currently attending may apply to remain and be accepted on a cross-boundary application. In these cases, the administrator, in consultation with the student and his/her parents and/or guardians, determine an appropriate date of transfer to their catchment area school up to the end of the current school year according to what is in the best educational interests of the student. Students who were of the school’s catchment area may apply for cross-boundary acceptance for the following school year. (See #1, Priorities for Consideration of Acceptance for Cross Boundary Students in policy JC – School Attendance Areas.)
• Students who move outside their catchment area after March 1st may submit a cross-boundary application form to that school at the time of their move.
• Any student who has been accepted as a cross-boundary student will have the opportunity to complete the program for that school year. Continuation of cross-boundary status will be reviewed in subsequent years according to the priorities listed in the Student Admission and School Choice Policy.
• Students who have applied and been accepted to a District Specified or a District Alternative Resource program are not considered cross-boundary students. Students who withdraw from a District Specified or a District Alternate Resource program may apply for cross-boundary acceptance to remain at that school. In these cases, the administrator, in consultation with the student and his/her parents and/or guardians, will determine an appropriate date of transfer to their catchment area school up to the end of the current school year according to what is in the best educational interests of the student. (See #1, Priorities for Consideration of Acceptance for Cross-Boundary Students in policy JC – School Attendance Areas)
• Students who have been placed in a District Special program are not considered cross-boundary students. Students who withdraw from a District Special program may apply for cross-boundary acceptance at that school. In these cases, the administrator, in consultation with the student and his/her parents and/or guardians, will determine an appropriate date of transfer to their catchment area school up to the end of the current school year according to what is in the best educational interests of the student.
• Students who withdraw from a Mandarin Bi-lingual program or from a French Immersion program may apply for cross-boundary acceptance into the English K-12 program at that school. In these cases, the administrator, in consultation with the student and his/her parents and/or guardians, will determine an appropriate date of transfer to their catchment area school up to the end of the current school year according to what is in the best educational interests of the student. (See #1, Priorities for Consideration of Acceptance for Cross-Boundary Students in policy JC – School Attendance Areas)
• Students transferred into a school on an administrative transfer are not considered cross-boundary and are subject to the conditions of the administrative transfer. (See Student Discipline Policy JG)
• Child care refers to on-site registered child care, off-site registered child care and non-registered child care providers within the attendance area of a school. Suitable proof of child care will be required by the school administrator or designate. (See #3, Priorities for Consideration of Acceptance for Cross-Boundary Students in policy JC – School Attendance Areas)
• All students applying cross-boundary must obtain a cross-boundary application form from their current school.
• Notification of the decision regarding cross-boundary application is provided by the administrator to the parent/guardian in writing through the return of their signed cross-boundary application form.
• Students who apply for cross-boundary acceptance must ensure that they are registered at their home school. (See Student Admission and School Choice Policy JEC.)
May 28, 2014

To: Management Coordinating Committee (Committee One)

From: Scott Robinson, Associate Superintendent

Re: Norma Rose Point School - UPDATE

INTRODUCTION:

This report is for the information of trustees and committee members and serves as an update to the report provided in April 2013. No follow-up on the part of the Board is required at this time.

PROGRESS UPDATE:

ENROLMENT:

The school will include students in Kindergarten through grade seven for the 2014-15 school year and will then grow to include grade eight the following year. Enrolment is projected to be between 475 and 485 students for the upcoming school year and will jump to approximately 585 students the following year.

Current enrolment projections indicate that the school will not reach capacity until the 2019 school year, however due to the significant amount of development in the area, it is possible that this may occur prior to that time. Staff will continue to monitor enrolment carefully.

EDUCATIONAL VISION AND PHILOSOPHY

Norma Rose Point staff have engaged in an extensive collaborative process to develop a clear vision and understanding of how they will work together in their new school. Monthly meetings between administrators and teachers have been used to research, discuss and study the best practices for a modern and innovative school. Teachers have been engaged in developing a school profile and philosophy that will be supported by the physical setting of their newly built school. Parents have also been involved in regular collaborative sessions with the school administration.
The primary goal articulated by the school community is:

"To meet learner needs by focusing on learner strengths, infusing technology in meaningful ways and collaborating with each other to be the best we can be".

Six key principles have been developed to describe the school's practice. They are to:

- *develop a collaborative learning environment*
- *provide an innovative learning space*
- *develop personalized learning*
- *learn with technology*
- *enable skills for 21st Century learning*
- *provide partnerships with community to support student learning*

The tag line for the school is "learners at the centre". The school's Code of Conduct is based on the First Nations Circle of Courage.

STUDENT TRANSITION PLAN:

Transition plans for the University Hill Elementary (UHE) students to move to Norma Rose Point (NRP) have been extensive and have involved parents, teachers and students. At this time, approximately 100 Grade 5 & 6 students have been pre-transitioned to Norma Rose Point. A total of 150 students will be moving from University Hill Elementary to Norma Rose Point School between Kindergarten and grade seven.

The following transition activities have occurred recently:

- Teachers and students have participated in meetings aimed to provide a smooth transition from UHE to NRP. On May 7, 2014 the UHE Grade 5 & 6 teachers met with the NRP Grade 6/7 teacher and the Resource Teacher to ensure an effective articulation of the incoming students.
- Grade 5 & 6 students from NRP came to University Hill for a lunch and social with a Grade 5 class before attending the UHE Young Entrepreneur's Fair. Later in the month, UHE students went over to NRP's Young Entrepreneur's Fair.
- Since the beginning of the year, meetings were held both individually and jointly by both schools to provide information and to answer questions from parents in the community. There have also been several meetings in the community to explore transportation options for the fall.
- UHE hosted a parent information session and several open house sessions in addition to providing informational brochures. One parent information session was specifically to provide information about the philosophy and physical layout of NRP. This was hosted at UHS. The VBE Family of Schools brochure has been distributed at all parent sessions.

FACILITY DEVELOPMENT UPDATE:

Construction of the school is in the final two months of work. Phase One (middle wing) is 95% complete and Phase Two (K-5 wing) is 85% complete. The balance of work in Phase two is millwork and finishes. The whole school will be substantially completed in July, 2014 and new furniture will arrive in July also. Norma Rose Point will be vacating the portables at Queen Elizabeth in early July with VSB movers transferring existing
furniture and teacher supplies to make way for Gordon Elementary in the portables. Norma Rose Point teachers will be commencing set up of their new teaching spaces in August for school opening in September.

TRANSPORTATION:

Bus transportation has previously been offered to students in the University Hill Elementary catchment who were attending Queen Mary Elementary, Queen Elizabeth Elementary and Southlands. This service will be discontinued at the end of June 2014. A letter has been sent out to these families informing them of the cancellation of service.

STAFFING and COLLECTIVE AGREEMENT:

Negotiations with the VTF have been ongoing for a number of months with the goal of drafting language that would be applicable to middle schools. The need for this was due, in part, to the current VSB / VTF Collective Agreement being structured to recognize only 'elementary' and 'secondary' teachers in our system.

We have recently successfully concluded those discussions with language drafted in the areas related to instructional time, preparation time, supervision and employee definitions. We are now awaiting approval from BCPSEA and BCTF for a four-party agreement to be finalized.

SCHOOL ADMINISTRATIVE TEAM:

Rosa Fazio is the Principal of Norma Rose Point Middle School and Sean Marlyn will be Vice Principal.

CONCLUSION:

Norma Rose Point is very close to becoming an open and fully functional K-grade 8 school. Both the physical building and the pedagogical concepts that will be integral to the school are very exciting. In the past year, the school building has reached the final stages of completion as the school staff and students anticipate moving in and developing an interesting and modern VBE school for students from Kindergarten to Grade 8.