



Comox Valley Schools

A Community of Learners

INNOVATIVE • INQUISITIVE • INCLUSIVE

SD 71 PILOT WASTE REDUCTION STATIONS SUMMARY REPORT

2021/2022

MIXED RECYCLING PAPER & HARD PLASTICS

- Coffee cups
- To-go cups
- Yogurt/apple sauce cups
- Chip containers
- Tin cans
- Tin foil
- Milk jugs & cartons
- Plastic clam shells
- Plastic jars/bottles
- Paper

NO PLASTIC STRAWS



RETURNABLES

- Juice box
- Pop cans
- Plastic drink bottles
- Drink pouches



SOFT PLASTICS

- Plastic bags
- Over wrap



CRINKLY PLASTICS

- Zip lock bags
- Squeeze pacs
- Lunchables
- Chip bags
- Granola & candy bar wrappers



REMEMBER TO RINSE YOUR RECYCLING

Please make
sure all items
are clean 😊

LRC
RETURN
HERE



Huband Green Station

MIXED RECYCLING

- Coffee cups
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Pilot Waste Reduction Stations Summary Report

School District 71, 2021/22

Prepared by Tina Willard-Stepan, with information provided by those participating, and collaboration with SD71 staff Serina Allison, Gerald Fussell, Myra Wilson, Tara Colborne and Earth Warriors founder Ben Morrison. Contact Tina willstepcoaching@shaw.ca for more information.

Introduction

Currently School District 71 supports mixed recycling (blue bins) and garbage (landfill) on a large scale for each school.

Waste that was identified as divertible, but not included in the current district-wide system:

- other flexible plastic packaging (i.e., crinkly plastic, granola bar wrappers, chip bags, etc.)
- plastic overwrap (i.e., soft plastics, food wrap)
- returnables (i.e., single use beverage containers)
- food waste/compost

With the opening of the new Lake Trail Community School facility for the 2021/22 school year, Principal Gerald Fussell and Lead Environmental and Outdoor Teacher Serina Allison saw the new facility as an opportunity to support and promote a waste diversion culture with the whole school community as part of taking a pro-active approach to the climate crisis. Following the launch of this initiative, other schools were inspired to follow suit. The SD71 project was supported by Comox Strathcona Waste Management Educator Tina Willard-Stepan.

This report is a summary of the information gathered from 3 schools chosen to pilot this process: Huband Park Elementary (grades k-7), Lake Trail Community School (grade 6-9), and Highland High School (grades 8-12). Each School installed 'Green Stations' and modified the project based on budget and school needs. These stations were installed to support the school in diverting waste that is not currently included in School District 71 waste diversion. In addition to these three schools, Arden Elementary School (grades k-5) and Isfeld High School (grades 8-12) independently created and managed school-wide composting systems during the 2021-22 School year. We have included this data as well.

We have done our best to standardize this data, but because each school customized the program to their own needs, relied on estimated data (i.e., by bag size), and started at different times during the year, these numbers are approximate. These programs emerged organically within each school and data was tracked and accumulated after the fact so that we could analyze larger impact across the district and create recommendations based on these activities. Numbers are rounded.

Green Stations Summary by School

Huband Elementary School (377 students)

Huband installed one 'Green Station' and signage in the main foyer of the school in November 2021 (see Appendix 1 for images). Teachers retained items in their classroom in bins and then had students deliver to the main station daily. It included: crinkly plastic, soft plastic, returnables, and a mixed recycling bin.

Two teachers shared the responsibility of collecting materials and delivering them to the Courtenay Return-it Depot.

School Education and Engagement:

- Staff orientation done through ProD hosted by CSWM Educator
- Multiple classes participated in presentations by CSWM Educator to support learning and a culture of waste diversion for the school.
- Waste audits with intermediate classes
- Viewing the landfill video
- Tours of the landfill for two intermediate classes

TOTAL WASTE DIVERTED DURING PARTICIPATION IN PROJECT (31 WEEKS):

Food waste: N/A – Huband has a school garden, and this waste was not measured

Crinkly plastic: 1085 litres (0.5 x 70 litre bag/week x 31 weeks)

Per student: 2.9 litres total, 0.09 litres/week

Soft Plastic: 1085 litres (0.5 x 70 litre bag/week x 31 weeks)

Per student: 2.9 litres total, 0.09 litres/week

Returnables: 1085 litres (0.5 x 70 litre bag/week x 31 weeks)

Per student: 2.9 litres total, 0.09 litres/week

Lake Trail Community School (372 students)

Lake Trail installed four 'Green Stations' and signage during the new build (see Appendix 1 for images) and started the program at the beginning of the school year. They included: crinkly plastic, soft plastic, returnables, food waste/compost and a mixed recycling bin. It was the most comprehensive program of all the schools who participated.

Lake Trail Life Skills program took on the task of sorting crinkly plastic, soft plastic and returnables, and delivering them to the Courtenay Return-it Depot. Compost was picked up weekly by Earth Warriors (See Appendix 2 for contact information).

School Education and Engagement:

- Staff orientation done through ProD hosted by CSWM Educator
- All grade 6/7- in early September went to landfill for a half day tour-hosted by CSWM
- In class waste diversion presentation and landfill videos for each class supported by CSWM Educator -<https://www.cswm.ca/communityeducation>
- Shared out to parent community through school newsletter, on school website, on school video feed, media release in community paper.

TOTAL WASTE DIVERTED DURING PARTICIPATION IN PROJECT (39 WEEKS):

Food waste: 1.76 tonnes (45 kg per week x 39 week)

Per student: 4.7 kg per total, 0.12 kg per week

Crinkly plastic: 2730 litres (1 x 70 litre bag/week x 39 weeks)

Per student: 7.3 litres total, 0.19 litres/week

Soft Plastic: 2730 litres (1 x 70 litre bag/week x 39 weeks)

Per student: 7.3 litres total, 0.19/litres week

Returnables: 6825 litres (2.5 x 70 litre bag/week x 39 weeks)

Per student: 18.3 litres total, 0.47 litres/week

*It should be noted that the life skills group made \$1059 for their field trip as a result of this work

Mixed Recycling: 51,870 litres (7 x 190 litres x 39 weeks)

Per student: 139 litres total, 3.6 litres/week

Highland High School (694 students)

Highland installed one 'Green Station' and signage in the main foyer of the school (see Appendix 1 for images) adjacent to the vending machine. It included: crinkly plastic, soft plastic, and a mixed recycling bin.

One teacher took on the responsibility of collecting materials and delivering them to the Courtenay Return-it Depot.

School Education and Engagement:

- CSWM Educator worked with Environment club members and supported launching the station
- Earth week waste diversion information booth was set up by Environmental Club supported by CSWM Educator
- Foods classes and Environmental Science classes received waste diversion presentations by CSWM Educator

TOTAL WASTE DIVERTED DURING PARTICIPATION IN PROJECT (13 WEEKS):

Food waste:	N/A – no compost system
Crinkly plastic:	910 litres (1 x 70 litre bag/week x 13 weeks) Per student: 1.3 litres total, 0.1 litres/week
Soft Plastic:	455 litres (0.5 x 70 litre bag/week x 13 weeks) Per student: 0.65 litres total, 0.0009 litres/week
Returnables:	Collected by The Advantage Program but were not tracked by this group
Mixed Recycling:	22,230 litres (6 x 190 litres x 19.5 pickups – biweekly) 32 litres per student Per student: 32 litres total, 0.05 litres/week

Compost Only Summary by School

Arden Elementary School (256 students)

Arden has teaching staff that are dedicated to composting and diverting waste and have created a school culture around this.

Compost was picked up weekly by Earth Warriors (See Appendix 2 for contact information).

TOTAL WASTE DIVERTED DURING 2021/22 school year:

Food waste only: 4.5 tonnes (115 kg/ week x 39 weeks)

Per student: 17.6 kg total, 0.45 kg/week

Isfeld High School (981 students)

Isfeld teacher Heather Becket and an active environment club are dedicated to composting and diverting waste and have created a school culture around this.

Compost was picked up weekly by Earth Warriors (See Appendix 2 for contact information).

TOTAL WASTE DIVERTED DURING 2021/22 school year:

Food waste only: 2.9 tonnes (73 kg/ week x 39 weeks)

Per student: 3 kg total, 0.07 kg/week

Recommendations

These recommendations are based on teacher and administrator feedback as well as overall themes identified by both district employees and the CSWM Educator

- In 2020, following a delegation made by students, the SD71 School Board approved the creation of a district-wide composting system – the numbers in this report show that this would divert a very large quantity of food waste from being landfilled each year. As this project demonstrated, up to 1.76 tonnes of food waste per school could be diverted from landfill. This is potentially 23 tonnes (13 schools) of food waste diverted.
- This is reflective of School District 71 only – CSWM region also includes SD72 and 84 and so there is quite a lot of lost opportunity for food waste diversion in schools at this time.
- Schools with more learner engagement had higher diversion rates.
- Compost being managed by teaching staff and students is not sustainable. Burnout is high and compost systems ebb and flow based on engaged staff and students who come and go in each school facility.
- It is recommended that waste diversion should be expanded with roles divided as in chart below:

Teachers	Creating waste diversion culture through learning activities (i.e., NOT physically managing the waste)
Students	Support in creating waste diversion culture through leadership classes, environment clubs, green teams and learning
School District Facilities Management	Creating and supporting district-wide systems with infrastructure (i.e., bins) Negotiating contracts with waste contractors for whole district Leadership with custodial staff to support diversion
School Custodial Staff	Handling the waste - converting their systems to support diversion rather than single-stream
Comox Strathcona Waste Management	Student and educator support through presentations, project support, mentorship, and information

- The school district requires support in this if they are to pursue a district-wide system for composting
 - Models to look to exist in Nanaimo and Richmond School districts – research is required
 - Private contractors (i.e., Earth Warriors) could be contracted to support regular pickup systems

- Comox Strathcona Waste Management could consider supporting this process by allowing school food waste to be a part of the residential (rather than commercial) waste stream. This waste is primarily individual lunch waste from residences that is being disposed of in the school building
- The initial cost of setup is a challenge and varied from \$10,000 at Lake Trail to \$300 at Huband and Highland. Depending on the number of stations and bins used. The less expensive versions are adequate for temporary work but a longer term, consistent bin setup across the district is recommended (see Appendix 1 for photos of different setups).
- Schools might not be able to afford the compost pick-up fees (approximately \$200 per week). It is recommended that waste diversion costs like this be integrated into a district-wide contract system rather than managed by each school independently.
- Finding people to sort and transport the diverted waste was a challenge. Integrating this into custodial staff responsibilities as a part of their usual waste removal duties would solve this. It is the same amount of waste being handled, just diverted to the appropriate places.
- According to the rules of the Recycle BC, programs for soft and crinkly plastics from schools are a part of the Industrial-Commercial-Institutional waste stream and not meant to be taken directly to Return-it Depots – teachers doing this are ‘flying under the radar’. A solution for diverting this waste from schools must be found between SD71 facilities operations, Recycle BC, and Comox Strathcona Waste Management service if the film plastic waste diversion is to be scaled up to the whole district
- Cross-contamination between materials is a challenge. An increase in CSWM Educator interaction with staff and students may remedy this somewhat
- Compost bins in schools should have foot pedals to open and close – more sanitary

Appendix 1 – photos

Huband Elementary School



Lake Trail Community (Middle) School



Highland High School

Highland Green Station

SOFT PLASTICS <ul style="list-style-type: none">• Plastic bags• Over wrap 	MIXED RECYCLING <small>PAPER & HARD PLASTICS</small> <ul style="list-style-type: none">• Coffee cups• To-go cups• Yogurt/apple sauce cups• Chip containers• Tin cans• Tin foil• Milk jugs & cartons• Plastic clam shells• Plastic jars/bottles• Paper NO PLASTIC STRAWS 	CRINKLY PLASTICS <ul style="list-style-type: none">• Zip lock bags• Squeeze pacs• Lunchables• Chip bags• Granola & candy bar wrappers 
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REMEMBER TO RINSE YOUR RECYCLING



Appendix 2 - Contacts

- **EMTERRA Environmental**
250-336-8066
<https://www.emterra.ca/>

- School blue bins
- **Earth Warriors Composting – Courtenay**
Contact name: Ben Morrison
earthwarriorscomposting@gamil.com
250-650-7489
<http://www.earthwarriorscomposting.com/contact.html>

- Pick up once a week
- **Industrial Plastics & Paints – Courtenay**
Contact name: John Cripps
250-334-2886
john.cripps@goindustrial.ca and/or
john.r.cripps@gmail.com

- Bin sorting system infrastructure from Laker Trail Community School
 - Installation
- **Return It! Depot- Courtenay**
250-338-6013
<https://www.return-it.ca/locations/courtenay-return-it-depot/>

- Free
 - Must be delivered
 - Takes all returnable
 - Soft and crinkly plastics
- **SD71- Manager of Custodial Services**
Contact: Rene Lanoix
250-338-4193
rene.lanoix@sd71.bc.ca

- Will order appropriate bags for bins and receptacles
- **Comox-Strathcona Waste Management-Education**
Contact name: Tina Willard-Stepan
250-703-1202
willstepcoaching@shaw.ca
<https://www.cswm.ca/education>

- Free waste education programming supported by Comox-Strathcona Waste Management.
 - Help support education of staff and students on bin sorting and more

- **SD71-Environmental and Outdoor Learning**

Contact name: Serina Allison

250-650-6421

serina.allison@sd71.bc.ca

<https://learn71.ca/environmental-outdoor-learning-eol/>

- Project support

- **SD71- Print Shop**

Contact name: Teri Ingram

print.shop@sd71.bc.ca

- Custom creation of all signage and stickers
- All previously used products kept on file

- **Director of Operations**

Contact name: Ian Heselgrave

250-334-5500

ian.heselgrave@sd71.bc.ca

- Support with site assessment and process
- Support with custodial staff communications