

# EW ENERGY WIRE

## SD43 Sustainability and Energy Management Newsletter

*An initiative from SD43's Facilities Department - Energy Management and Sustainability*

Issue No. 6 Date: May 2022

## About Us

We are the District's Sustainability and Energy Management Team.

We work with BC Hydro, Clean BC, and Fortis BC in finding ways to make our schools run more efficiently to reduce our carbon footprint. New LED lights at your school? That was us. New efficient heating system? We were there too. Holiday Shut Down competitions, us too, and so much more.

This newsletter is designed to let everyone know about SD43 sustainability initiatives. All through the District, great things are going on to make our students, our community, and our world more sustainable. We want to know what you are doing and how you are doing it.

## Calendar of Sustainable Events:

### **June 2022:** Summer Holiday Shutdown Campaign

Soon we will be leaving our schools relatively empty over the summer holidays. During the last week of classes, we will be organizing a summer holiday shutdown campaign.

## Urban Roots Garden plant donations

Thirty-three schools throughout our District have each received a donation from Urban Roots of over 100 starter plants, including vegetables, herbs, and strawberries.

Urban Roots is focused on the promotion of food literacy and increasing sustainability within our schools and community.

We look forward to seeing and hearing how your gardens grow.



# District Eco-Challenge Competition Week Prizes

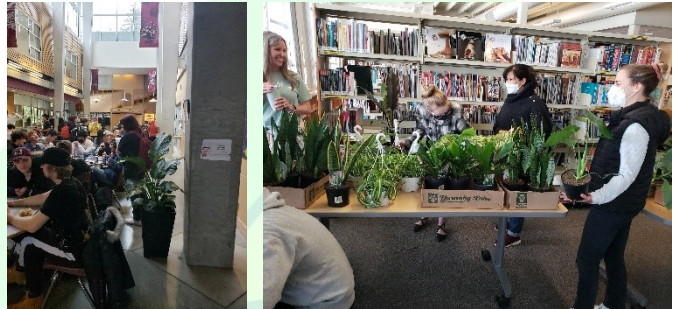


The winning schools from the recent Eco-Challenge are now spending their winnings on furthering sustainability within the culture of their schools. This is what they are doing:

**Heritage Mountain Middle School** took their \$700 in prize money for being the overall ECO Challenge winners and bought indoor plants to enhance their learning spaces.

Not only do indoor plants enhance the overall appearance of a space—they can also make us feel good, too. Studies have shown indoor plants can...

- boost moods, productivity, concentration, and creativity
- reduce stress and fatigue
- clean indoor air by absorbing toxins, increasing humidity, and producing oxygen
- add life to sterile spaces, offer privacy, and reduce noise levels
- they are therapeutic to care for



**Bramblewood Elementary School** took first prize among the Elementary schools and was awarded \$500.

With their prize money, the school was able to provide a pizza lunch for the students who participated, as well as have Nanny McCluckins Chick Hatching for two classes.

**Dr. Charles Best Secondary School** took their winnings to make T-Shirts for their Sustainability Club and **both Eagle Mountain Middle School** and **Heritage Mountain Elementary School** are still deciding.



## Save The Date 2023 Eco-Challenge – Earth Day

Please plan to participate in the Eco-Challenge next year from April 17 through April 22. With Earth Day at the end of this week, we hope to get more schools to participate next year in this fun and educational structure to bring awareness to Climate Action and Sustainability.



# Earth Day Celebration

Schools throughout the district celebrated Earth Day on April 22<sup>nd</sup> in many ways. A great example is Baker Drive Elementary school students who used their creativity in paintings and messages to save our planet.



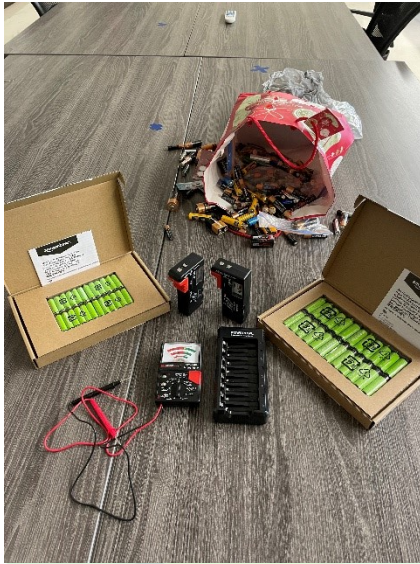
## Battery Replacement Program

The Energy Management and Sustainability Department has initiated a battery replacement program to promote the use of rechargeable batteries as a sustainable solution to the district battery usage problem. Riverside Secondary's Sustainability Team has had enough of the ongoing waste in using single-life batteries. Most people don't realize the environmental impacts of using single-use batteries. Heavy metals, corrosive materials, and other nasty chemicals combined with (all-too-common) improper disposal spell bad news for the environment. But rechargeable batteries have 28 times less impact on global warming, 30 times less impact on air pollution, 9 times less impact on air acidification, and 12 times less impact on water pollution!

Therefore, Riverside Secondary is moving over to rechargeable. Brian Chan, along with his Sustainability Club, has arranged the purchase of 100 X AA and 100 X AAA to use as replacements for the existing single-use

batteries that the school usually buys to replace dead batteries. When a replacement battery is needed a rechargeable battery will be provided in its place. The old batteries will be tested to ensure that only the worn-out ones are removed (when something runs out of battery power, we usually dispose of all the batteries but most times only one battery is dead). The school now has 3 battery charging stations located throughout the school to replenish the rechargeable ones on an ongoing basis.

This is a pilot project taken on by Riverside and we look forward to hearing how it goes and what the school ends up saving.



## Electronics Recycling - Support Jazmine- Thank you SD43!

Jazmine Cabaluna is a 16-year-old grade 11 student at Gleneagle Senior Secondary School competing for a scholarship hosted by the Electronic Recycling Association. The scholarship is based on the ability to arrange a collection of used electronics to be either refurbished, recycled, or sustainably disposed of.

The district was able to assist Jazmine by communicating and endorsing her efforts. A total of 9 different schools participated. They were Aspenwood Elementary, Banting Middle, Blakeburn Elementary, Charles Best Secondary, Moody Elementary, Mountain Meadows Elementary, Ranch Park Elementary, Riverview Park Elementary, and Roy Stibbs Elementary. Thanks to you schools for stepping up and making an effort!

*Jazmine writes: "The event was incredibly successful. I noticed that this time around, almost all the participants were in elementary schools. In comparison, the first time I did this by myself, almost all were middle schools. This was no doubt due to the green light from the district, the absence of which was a big deterrent for elementary schools the first time around because of COVID.*

*The unit was very full – it took 2 ERA employees and several trips from the unit to get it empty!*

*The district was a great help to the operation in getting the word out. I am so thankful for the help with this project."*





## Nurturing the gift of “The Giving Tree”

Last fall we had 22 schools participate in our District Tree Planting Program. Now that winter is over, and Spring is here the trees we all planted are coming to life. Along with new life, new lessons are being developed. Take advantage of your tree to further engage and educate our students on the importance of trees and nature.

Contribution from James McConville (Eagle Mountain Middle), Jill Reid (Baker Drive Elementary), Laurie Birnie (École Kilmer Elementary) and Hannah Myles (Terry Fox Secondary).

*“Trees can certainly improve the environment at a school. At Eagle Mountain Middle, we have an outdoor club that takes on environmental tasks around the school. We were given a tree as part of a grant from a local business, and our students planted it in the fall alongside Adrian Pettyfer our Energy Manager. The tree has now started to grow its spring leaves. In the spring, the Katsura’s heart-shaped leaves are reddish-purple. In the fall, this amazing tree has a scent of cinnamon when the leaves and the bark change color. We have planted the tree in the center of the school driveway roundabout next to our flagpole.*

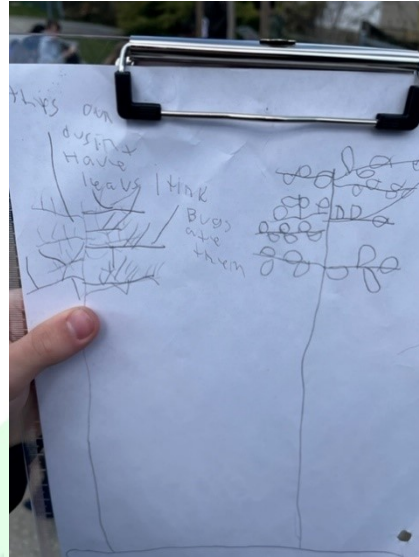


*In addition to planting and nurturing our trees, the outdoor club does other activities on campus. The students are currently creating a mountain bike trail on the forested land that is part of our school property. This trail is designed to be accessible by a variety of skill levels and can be used for walking as well as a mountain biking.*

Everyone is welcome to visit our outdoor classroom and forested trails. This part of the school property is accessible to all community members.”

*James McConville, Eagle Mountain Middle School*

At Baker Drive Elementary School, students are continually being engaged to study and draw their tree as it evolves showing new life with spring upon us. Some of the pictures can be seen below.



Above: Baker Drive Elementary "Buddy class sketching their tree"



Above: Blossoming Trees at Kilmer and Terry Fox

## Eagle Mountain Middle School- Recommissioned!

The Eagle Mountain Middle School has been recommissioned under BC Hydro's Continuous Optimization Program and is now completely heated by electricity with limited support from natural gas-fired condensing boilers. SD43 engaged Prism Engineering to perform a study on the school. The school has water source heat pumps that get their source of heat from the school's exhaust air and an air source heat pump that provide heat during unoccupied hours. The heat pumps were backed up by two Lochinvar XL series boilers. Due to certain issues in the system, these heat pumps were not able to run and stayed in trip mode. In past months, with support from our internal mechanical team, including our DDC Tech, ESC (the control's company), and Prism Engineering, we were able to recommission the heat pumps and set up the schedule so that heat pumps run without failure.

Projects like this will contribute to the District's reduction of GHG emissions and bring us closer to our reduction targets.





AERMEC ASHP



WATER SOURCE HEAT PUMPS

## Boiler Upgrades & Other Capital Upgrades over this Summer

The District is constantly working on improving mechanical heating systems in schools and is committed to reducing GHG Emissions. Last year, the district replaced old inefficient boilers with new highly efficient condensing boilers at Leigh Elementary, Central Community Elementary, and Pleasantside Elementary.

This year, the following schools will also be having their mechanical heating systems upgraded. Aspenwood Elementary, Hampton Park Elementary, Mary Hill Elementary, and Hillcrest Middle School. These upgrades are designed to make the schools run more efficiently and, at the same time, provide better comfort to our students and staff.

## LED Lighting

Every year the district selects schools to change old inefficient lighting over to LED. Last year Port Moody Secondary, Winslow, and Baker Drive Elementary were updated.

This year we have started work at Kwayhquitlum Middle and have plans to change both Hampton Park Elementary and Aspenwood Elementary to LED. Not only do these upgrades reduce our energy consumption, but they also improve the learning spaces with added dimmable lighting.

**Exterior Lighting:** We will also spend time over the summer replacing exterior lights that are either inefficient or not working. If you feel your school needs improved exterior lighting, please let us know. If you see your exterior lights are on during the day when not required, please let us know.

## EV Charging at Port Moody Secondary

Port Moody Secondary now has 4 charging stations for its staff and students. With the addition of PMSS, the District now has 6 locations to charge. It is the hope that providing charging at our schools will encourage our community to move to electric vehicles by removing the barrier that many have in finding reliable and convenient places to charge.



## What is going on at your school?

If you or your school is doing something that will help sustain our world's environment, we want to hear about it and let everyone else know. Please contact us so we can help get the word out.

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