

REAPS



REPORT

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November 2022

COMING EVENTS

NOVEMBER

- 2 DIY Vermicomposting @
Bob Harkins Branch
- 4 - 6 Studio Fair Arts Festival at CN
Centre
- 5 Art Knapps Annual Artisans in the
Greenhouse

DECEMBER

- 1 Planning your waste free
Holidays
- 3 Holiday Small Bus. Fair 2588
Recreation Place

JANUARY

- 1 Happy Green New Year!

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DIY: VERMICOMPOSTING

Join REAPS at the Prince George Public Library to learn about vermicomposting (worm composting). The program will provide an overview of what vermicomposting is and how to create your own worm bin in your home!

All ages are welcome.

Date: Tuesday, November 1, 2022

Time: 6:30 p.m. to 7:30 p.m.

Location: Bob Harkins Branch

Registration: Free drop in.

The lowly worm gets almost no respect and is synonymous with an insult. This humble creature toils tirelessly eating the garbage of life and bulldozes its way through the dirt almost blindly, with no eyes or ears to guide it.

But, as you might guess, worms have an important place in every ecosystem. These legions of tiny diggers include over 5,000 species and, according to Charles Darwin, humans wouldn't exist without them: "It may be doubted whether there are many other animals which have played so important a part in the history of the world, as have these lowly organized creatures," he once wrote.

REAPS NEWS

Web Pick of the Month

<https://www.ifixit.com/>

Repair guides for everything, written by everyone.

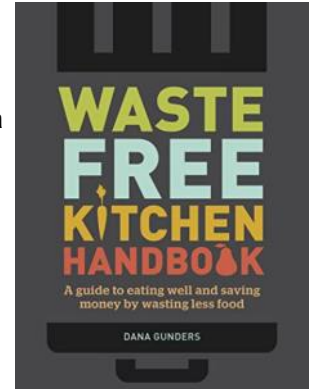


Book of the Month

Waste-Free Kitchen Handbook: A Guide to Eating Well and Saving Money By Wasting Less Food By: Dana Gunders

ISBN 13: 9781452133546

Despite a growing awareness of food waste, many well-intentioned home cooks lack the tools to change their habits. This handbook—packed with engaging checklists, simple recipes, practical strategies, and educational infographics—is the ultimate tool for reducing food waste.



School Programs

REAPS has over 33 school programs we deliver to schools in the RDFFG. With the RDFFG monetary support and our friends at Science World we are able to offer them FREE!

If you have a topic you wish to have a guest speaker provide we are happy and up to the challenge to make it engaging and fun for your classroom. Between Terri and Roanne we have lots of ideas in our "tickle trunk".

We are booking our Recycle Christmas Craft presentation now. Get a jump on booking our booked out "Pond Study" happens in May / June.

Book your presentations today! Drop an email to terri@reaps.org or roanne@reaps.org

Presentation lists can be sent to you or check out some online at www.reaps.org

REAPS Growing Knowledge Community Compost Garden

It is with excitement that we are taking this opportunity with the return of the 1950 Gorse Street property to the Lheidli T'enneh to embark on creating a larger educational space for residents of the RDFFG.

Thank you to the David Douglas Botanical Gardens Society who invited us to claim space in their garden expansion to fit our needs up on the hill (near UNBC). We are excited about complimenting each other and providing a venue that will attract visitors to engage, learn and grow.

We are in the mists of sending out funding proposals after funding proposals! Our director Maryanne is working tirelessly to find and write as many as she can. What we need from YOU is support letters for our potential funding opportunities. These can be emailed to garden@reaps.org

If you have a suggestion for the new space, funder to seek out, time to volunteer with this project.... Reach out!



Salmonids in the Classroom

REAPS is eggcited to be partnering with Fisheries & Oceans Canada since 2008 to deliver the Stream to Sea program across northern BC.

The Stream to Sea education program supports and provides resources to educators in British Columbia and Yukon. Students learn to become aquatic stewards by understanding, respecting and protecting freshwater, estuarine and marine ecosystems.

REAPS supports a total of 24



tanks and 34 classrooms which are located in Prince George, Fraser Lake, Ft. St. James, and Vanderhoof.

We are very fortunate that the hard work and dedication from volunteers with the Spruce City Wildlife Association Hatchery who captures the breeding pair of summer Chinook Salmon to provide our eyed eggs to participating classrooms.

Here are our 750 eyed eggs which have been delivered.



LOCAL NEWS

Projects Underway in Northern B.C. Will Reduce Community Wildfire Risk, Enhance Forest Health source: BC Gov News

Work is underway to enhance forest resilience to protect against the effects of wildfire and climate change in northern B.C.

Through a provincial investment of \$25 million, the Forest Enhancement Society of BC (FESBC) has funded 22 new community projects, including one in the Omineca Region and one in the Skeena Region. This includes work to reduce wildfire risk, while enhancing wildlife habitat, reduce greenhouse gas emissions from slash pile burning, and support forest recreation and ecological resiliency.

"The Forest Enhancement Society of BC is a proven partner in delivering projects on the ground that protect people from wildfire risks and reduce emissions from slash pile burning," said Katrine Conroy, Minister of Forests. "Along with the historic investments in Budget 2022 to transform the BC Wildfire Service into a year-round service and double funding for proactive wildfire prevention, these new projects funded by FESBC will help build communities that are safer and more resilient to climate change."

Wildfire-mitigation projects funded in the Skeena and the Omineca Regions include:

- Chinook Community Forest, \$3,000,000 – Reducing fuel loading in areas heavily impacted by mountain pine beetle, which has created a considerable fire risk to communities on the south side of Francois Lake and near Rose Lake.
- McLeod Lake Mackenzie Community Forest, \$1,401,666 – Wildfire risk-reduction treatments along Highway 39, to create a safer egress corridor on the main road to and from Mackenzie.

[TO READ FULL ARTICLE](#)

Concerns in B.C. Community Linger Over Water Source Disturbed by Site C Dam Construction source: CBC

A B.C. mom says she's afraid to bathe her and her partner's four kids at home. Instead, they opted to wash in lakes and rivers near their residence in Hudson's Hope, west of Fort St John, this summer.

Not satisfied to wait for solutions, Caitlin Vince, 37, helped found the Hudson's Hope Water Recovery Committee to address the ongoing issues with the town's tap water brought on by the construction of B.C. Hydro's Site C dam.

On Oct 14, the two-month-long "do not consume" order was lifted by Northern Health after the district's water received two good test results and an in-person visit from a Northern Health representative.

But the town's residents and its mayor say they still have serious concerns.

In 2020, the district switched from using the Peace River as its water source to a well system that tapped into an underground

aquifer. Hudson's Hope built the new water treatment facility to manage the new water source.



The "do not consume" order was issued after the new water treatment plant failed.

Getting the all-clear from Northern Health to drink the water was met with limited enthusiasm by the Water Recovery Committee, as well as residents like Vince.

"The smell was awful. You came out of the shower feeling dirty. Yeah, it was kind of a nightmare," Vince said.

Dave Heiberg agrees that the quality of water is not what the community expected from the new system.

In a written statement posted to the District of Hudson's Hope website, Heiberg says the water treatment plant still faces operational challenges.

AROUND BC

These Vancouver Entrepreneurs Are Helping Build A Zero-Waste Economy

SOURCE: CBC

From electric vehicle batteries recycled into power storage systems to furniture made from chopsticks and food containers that can be reused hundreds of times, a new generation of business leaders in Vancouver are coming up with viable ideas to help reduce waste and slow the pace of climate change.

Many regions in B.C., including Metro Vancouver, have goals to transition to what's known as the circular economy, where resources are never thrown out but are re-used, recycled and re-introduced as new products.

The province has set ambitious goals to reduce the amount of waste produced in B.C. to 350 kilograms per person. In 2020, British Columbians disposed of an average of 499 kilograms of municipal solid waste per person.

Regional officials working on the problem say the Lower Mainland has become an important hub for innovation in the circular economy.

CBC News recently interviewed the people behind three companies featured at

as many others, but not in the way you probably expect.

Felix Böck, ChopValue

Felix Böck, a German-born engineer who lives in Vancouver, had his epiphany for a zero-waste company while out for sushi five years ago: reclaim single-use chopsticks and turn them into home decor and furniture.

Jason Hawkins and Anastasia Kiku, Reusables

In early 2021, when the COVID-19 pandemic had people choosing ordering in over dining out, Jason Hawkins, 27, and Anastasia Kiku, 24, launched a company that sought to improve how reusable food containers could replace single-use ones.

[TO READ FULL ARTICLE](#)



Metro Vancouver's Zero Waste Conference whose businesses try to solve a waste problem.

Sumreen Rattan, Moment Energy

Sumreen Rattan, 26, and her company Moment Energy are just as excited about the electric vehicle (EV) industry

Commercial Kitchen in Revelstoke, B.C. Connects Community, Prevents Food Waste

source: Global News

The Neighbourhood Kitchen is nestled near downtown Revelstoke, B.C. It is a commercial kitchen that is a part of the Community Connections Society that helps people who need a little extra help.

The Community Connections Society has been providing many social services in Revelstoke and the surrounding community for more than 20 years and now the Neighbourhood Kitchen is further expanding its offerings.

Austin Luciw, a Red Seal chef, has been running the kitchen since its opening in

June as the Neighborhood Kitchen. Now, he says the program is hitting its stride.

"Pretty much all the stuff that goes out of the food bank is stuff that's made here," said Luciw.

"Then I'm also baking for our school breakfast programs and then I've got some catering for our Indigenous Friendship Society ... (I'm) going to be baking for our Revelstoke After School Society as well."

Since opening, the kitchen has helped serve 300 people a week while keeping approximately 2,000 to 3,000 pounds of food a week out of the landfill with its food recovery program.

[TO READ FULL ARTICLE](#)



AROUND CANADA

Norwegian Company Hopes to Generate Energy, Capture Carbon From Alberta Garbage

SOURCE: CBC

A Norwegian clean energy development company is betting big on Alberta as the place to combine its waste-to-energy technology with a method of capturing carbon and storing it underground.

Varme Energy, which was incorporated in Edmonton this summer, wants to set up facilities in Alberta that use a two-step combustion process owned by its parent company that's been used in waste-to-energy facilities in Norway for more than a decade.

Through this process, waste that was headed for landfill instead is converted into steam that can be used for district heating, industrial processes or put through a turbine to generate power.

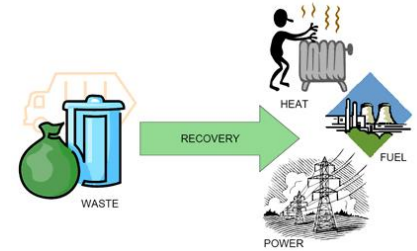
"You're literally diverting the [garbage] trucks, instead of going and dumping at the

landfill, they come and dump into a facility like ours," said Sean Collins, CEO of Varme Energy, a subsidiary of Norway's Green Transition Holding.

Varme hopes to make a profit while also making a dent in the growing piles of trash sent to municipal landfills, which are collectively responsible for about 23 per cent of the country's [methane emissions](#) and can be costly and time-consuming to build.

Garbage is already turned into electricity in other parts of Canada. Brampton, Ont., is home to the Emerald Energy From Waste facility, and both Burnaby, B.C., and Courtenay, Ont., have waste-to-energy facilities operated by the New Jersey-based Covanta. In Burnaby, the facility takes in about a quarter of Metro Vancouver's trash.

Others, like Montreal-based Enerkem, use



waste to generate biofuels or chemicals, rather than energy. That company has a facility in Edmonton and another planned in Varennes, Que.

But Collins says Varme's facilities would be the first in Canada to both generate energy from waste, and to capture the excess carbon and store it underground, a process that's been piloted in Norway, but has not yet been tested in Canada.

[TO READ FULL ARTICLE](#)

Survey Claims Canadians are Split on Supporting a Circular Economy if it Causes Prices to Increase

SOURCE: Recycling Product News

Capterra Canada has launched its latest research study of over 1,000 Canadian consumers on the topic of the circular economy. The study was conducted in anticipation of the Circular Innovation Council's Circular Economy Month in October 2022 and Waste Reduction week from October 17 to 22, both crucial efforts to promote the advantages and economic benefits of a circular economy.

According to the survey, Canadians are not confident in their knowledge of the circular economy. 40 percent of consumers reported not being familiar with either the name or the concept, and only 13 percent of survey respondents were confident in their understanding of the circular economy.

"The lack of understanding of how the circular economy functions (particularly amongst Baby Boomers, 48 percent of whom are unfamiliar with the concept) shows the need for

more promotion of and transparency around initiatives that benefit the circular economy," reports Tessa Anaya, an analyst for the study. "Overall, many consumers are interested in sustainable shopping, but they won't be able to do so if companies are not transparent and educative about the circular economy practices they adopt."

Only 40 percent of Canadian consumers say that they consider a company's contributions to the circular economy when making purchasing decisions. Younger generations showed an even higher propensity for such shopping: 43 percent of 18- to 25-year-olds and 46 percent of 26- to 35-year-olds consider the circular economy when shopping, compared to just 29 percent of respondents over the age of 65. Over half (54 percent) of survey respondents trust that companies are implementing circular economy policies due to a sincere belief in them, which may be a driving factor behind consumers' interest in patronizing companies making sustainable

efforts.

When asked which company-led circular economy practices were most admirable, respondents answered:

- Recycling waste (by 73 percent of respondents)
- Reusing materials in the production process (67 percent)
- Reducing waste caused by production methods (64 percent)
- Producing products with longer lifetimes (64 percent)

Canadian consumers are split when asked if they would pay more to support a circular economy: 50 percent would pay extra (of which 45 percent would between 10 percent to 20 percent extra), whereas the other 50 percent would reportedly not be inclined to support circular economy efforts if they make products cost more.

AROUND THE WORLD

Between 60 to 80% of Impacts On The Planet Come From Household Consumption

SOURCE: Circular

As a major economy, the UK's production and consumption has made it the fifth-largest contributor to greenhouse gas emissions in the world, SUEZ recycling and recovery UK says.

As the new UK government considers its priorities for the coming year, the resource management company says it has a chance to consider policy that can address this growing issue – helping to conserve energy and, ultimately, reduce household bills at a time of rising costs.

[The “Stuff of Life” report](#), commissioned by SUEZ and conducted by Beasley Associates, sets out a roadmap to address what it calls the “issues caused by consumerism” – outlining interventions for businesses and the public sector to tackle over-consumption.

The report sets out a plan of the measures policy makers at local and national level can take to support people in reducing their consumption.

Government policies that promote refills and reuse are an integral step to minimizing excess waste.

These measures are already operating successfully across Europe, in France, Spain and Austria, where ‘refills’ in super-



markets are becoming commonplace, SUEZ says.

The report highlights ways to help tackle overconsumption include:

- Provide fiscal incentives to encourage reuse, repair and renovation
- Set targets for percentage of reuse required and provide policy support to address high start-up costs
- Work with licensing, trading standards and environmental health teams to identify barriers to reuse / refill schemes
- Remove the best before dates on appropriate items to reduce food waste, with M&S and Waitrose already starting to scrap these dates

[TO READ FULL ARTICLE](#)

FAO and UNEP Issue Call for Action on Food Loss and Waste

source: UN environment programme

Tackling the scourge of food loss and waste represents a triple win opportunity - for the climate, for food security, as well as for the sustainability of our agrifood systems - and cannot be put on the backburner at a time of rising global hunger and surging food prices.

The third International Day of Awareness of Food Loss and Waste was marked 29 September by a call to action at a global virtual event in Rome organized by the Food and Agriculture Organization of the United Nations (FAO) and the UN Environment Programme (UNEP).

According to FAO's latest report on The State of Food Security and Nutrition in the World (SOFI), the number of people affected by hunger rose to as much as 828 million in

2021, an increase of about 46 million since 2020 and 150 million since 2019. In all, an estimated 3.1 billion people do not have access to a healthy diet.

Meanwhile, according to FAO's State of Food and Agriculture (2019) report, around 14 percent of the world's food (valued at \$400 billion per year) continues to be lost after it is harvested and before it reaches the shops; while UNEP's Food Waste Index Report shows that a further 17 percent of our food ends up being wasted in retail and by consumers, particularly in households. According to FAO estimates, the food that is lost and wasted could feed 1.26 billion hungry people every year.

Food loss and waste (FLW) also account

for 8-10 percent of global greenhouse gas emissions (GHGs) - contributing to an

unstable climate and extreme weather events such as droughts and flooding. These changes negatively impact crop yields, potentially reduce the nutritional quality of crops and cause supply chain disruptions.

Prioritizing the reduction of food loss and waste is therefore critical for the transition to sustainable agrifood systems that improve the efficient use of natural resources, lessen their impact on the planet and ensure food security and nutrition.



[TO READ FULL ARTICLE](#)

15 New Partners Join Canada Plastics Pact

SOURCE: Recycling Today

The Canada Plastics Pact (CPP) has announced it is welcoming 15 new partners to the cross-value chain collaboration platform, including consumer goods organizations, municipal governments, recyclers, waste management companies and nonprofits.

"With these new partners, the organizations representing the entire value chain are contributing to the collaborative action under the CPP that will result in addressing plastic packaging waste," says CPP Managing Director George Roter. "These partners bring a range of expertise ... that will allow for the building of a truly circular economy for plastics packaging."

Since the CPP launched in January to tackle plastic packaging waste and pollution, the organization has doubled in size to include 81 industry, nongovernmental and public sector organizations who, according to a news release, account for over a third of the plastics packaging in the market.

The newest partners include:

- **Knowledge Partners** Nova Chemicals, based in Calgary, Alberta, and Enerkem, based in Montreal. Knowledge Partners are organizations that join the CPP to provide professional, technical and commercial systems knowledge.

- **Signatory Partners** Erthos, Mississauga, Ontario; FGF Brands, North York, Ontario; GFL Environmental Inc., Toronto; Kwik Lok, Yakima, Washington; Nature's Touch, Saint-Laurent, Quebec; Primo Water North America, Mississauga; and Reckitt Benckiser Canada, Mississauga.
- **Implementation Partners** Circular Economy Leadership Canada, Winnipeg, Manitoba; Circular Materials, Toronto; the city of Toronto; CSA Group, Toronto; the government of British Columbia; and Pollution Probe, Toronto.

The announcement of the new partners follows the October release of the CPP's shared action plan, "Roadmap to 2025: A shared action plan to build a circular economy for plastics packaging," which, according to the organization, represents cross-value chain collaboration toward a circular economy for plastics packaging in Canada to drive tangible change by 2025.

The "Roadmap" establishes three strategic priorities:

1. **Reduce, reuse, collect** – Eliminate unnecessary and hard-to-recycle plastics. Drive innovation for reuse and refill models. Innovate to pre-

vent waste from being created in the first place. Improve collection and recycling systems.

2. **Optimize the recycling system** – Develop packaging design standards to improve recyclability. Make investments in new infrastructure. Address supply and demand issues to incorporate recycled resins. Ensure government policy is in place and well-designed.

3. **Use data to improve the whole system** – Create standard definitions and measurement practices. Drive investment in better real-time data and monitoring.

According to the CPP, innovation in technology and business models that will be generated through achieving a circular economy for plastics packaging will capture economic value, deliver jobs and position Canadian businesses competitively.

"The partners joining the CPP today are showing that they want to be leaders in creating a circular economy for plastics," Roter says. "They are contributing their unique voices and perspectives to shared actions and solutions."



A Dozen White Sturgeon Died Recently in a B.C. River. No One Knows

Nikolaus Gantner is searching for clues in 12 mysterious deaths along British Columbia's Nechako River. It's not your usual whodunit.

The dead are white sturgeon, North America's largest and longest-living freshwater fish. The species has been around for more than 200 million years, sharing the planet eons ago with dinosaurs.

While the white sturgeon population is endangered, premature deaths of the fish are exceptionally rare. Even more baffling, the dead fish — which were discovered in August and September on the Nechako River — were found with no wounds or telltale signs of what killed them.

Gantner, based in Prince George, B.C., is a senior fisheries biologist for the province.

Armed with a microscope and tissue samples from the fish, he's become the chief detective in an investigation he says is equal parts devastating and perplexing, considering how closely monitored the population is.

"It was like going through grief because we're really here trying to take care of this population," he said.

"I went through all the phases of grieving." Clues to the deaths now exist in dozens of vials and freezer bags holding tissue samples, awaiting analysis in labs across Canada. It could take months to solve the mystery.

Studies show there are about 500 white sturgeon left in the Nechako River, so a dozen deaths marks a significant blow to the numbers. Incredibly, almost zero wild sturgeon

have been born in the river since 1967, according to Environment and Climate Change Canada.

There are several possible reasons for this and many can be traced back to the construction of Kenney Dam in Fraser Lake, B.C., according to the white sturgeon recovery strategy.

[TO READ FULL ARTICLE](#)



RECYCLING & ENVIRONMENTAL ACTION & PLANNING SOCIETY

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Facebook Page: <https://www.facebook.com/REAPSPG>

Dumpy's Tip of the Month

HOLIDAY GIFT IDEAS

- gift certificates (Good Food Box, Farmers Market, Homespun Refillery)
- Zero waste starter kits (kitchen, shopping bag, bamboo toothbrushes, reusable straws, cutlery)
- Theatre tickets
- Reusable coffee mug, water bottle
- Home baked goodies (a number of home base businesses in town)



RECYCLE CRAFT CORNER

HOLIDAY POP BOTTLE PLANTERS

MATERIALS: 1 L pop bottles, paint, glue, pompoms, pipe cleaners

INSTRUCTIONS:

- cut out your pop bottle in the shape of a holiday character (seen below)
- Paint your holiday character
- Fill with soil and plant a plant



Recycling and Environmental Action Planning Society (AKA REAPS)

The REAPS Report is published six times a year, on the first of January, March, May, July, September, and November.

Articles, originals or reprinted with permission, are submitted by members and represent the opinions of the authors only, not necessarily those of the Society, Board, or members as a whole.

Deadline for submission is two weeks prior to publication date. Articles, suggestions for articles, or comments in general are *much* appreciated, and can be submitted to the REAPS office via email at newsletter@reaps.org

If you no longer wish to receive our newsletters via email please email REAPS and state UNSUBSCRIBE in the subject line.

RECYCLING and ENVIRONMENTAL ACTION PLANNING SOCIETY

MEMBERSHIP APPLICATION

Name: _____

Mailing Address: _____

City: _____ Postal Code _____

Telephone: _____

Email: _____

Annual Membership Fee:

- ☐ Individual (\$8.00)
- ☐ Family (\$15.00)
- ☐ Business (\$25.00)
- ☐ Student (\$5.00)
- ☐ Senior (\$5.00)

I'm interested in volunteering: ☐ Yes ☐ No

Things that I would like to take part in are:

- ☐ School presentations
- ☐ Master Composter Program
- ☐ Spring Plant Sale
- ☐ General Garden Work
- ☐ Information Booths
- ☐ Fundraiser Events
- ☐ Public Workshops and Presentations
- ☐ Board of Directors

Renew today: E-transfer: recycling@reaps.org

PayPal at www.reaps.org (state membership)

Cheque payable to:

R.E.A.P.S.

Box 444 Prince George, B.C. V2L 4S6