

LET'S TALK TRASH – JANUARY 2021

BATTERIES: As technology increases its presence in our daily lives, so does our reliance on batteries. Batteries power our cell phones, laptops, cordless tools, digital cameras, watches, hearing aids, and flashlights, smoke detectors and toys. In BC, all consumer single use or rechargeable batteries weighing less than 5 kg can be recycled. Call2Recycle, an organization funded by battery and portable electronics industry provides drop off locations across North America. There are many different kinds of batteries.

Lead acid batteries are made of wet cells. They are used to power your car, boat or tractor and are profitable to recycle. Because 70% of the batteries weight is reusable lead, 97% of lead acid batteries are recycled. The lead is easily extracted and reused without elaborate chemical processes. Over 50% of the current lead supply comes from recycled batteries. Locally, you can take your lead acid batteries to Canadian Tire, or Kal-Tire in Parksville and Nanaimo, for recycling.

Dry cell batteries can be non-rechargeable (zinc carbon/zinc chloride used for watches, shavers, clocks etc) or rechargeable (Nickel-Cadmium, Nickel Metal Hydroxide, or Lithium-ion used in laptops and cell phones). It's expensive and energy intensive to recycle dry cell batteries. In particular, Lithium-ion (Li-ion) batteries are challenging to recycle. They contain a wide diversity of ever evolving materials in compact, complex devices in a variety of shapes and sizes not designed for disassembly. There is no existent technology capable of producing pure enough lithium for re-use in batteries. (Second hand lithium is used for lubricants, glass, ceramic and other applications.)

There is incentive to recover cobalt, a costly metal in Li-ion batteries. (50% of cobalt comes from the Democratic Republic of Congo. It's considered to be tied to armed conflict, illegal mining, human rights abuses and harmful environmental practices.) Governments are subsidizing programs to find innovative solutions for collecting and storing discarded Li-ion batteries and transporting them to be recycled (only 20-40% of mobile phone batteries are recycled.)

If metals like cobalt, nickel, lithium, manganese can be recovered from used batteries at a large scale and more economically than from natural resources, expect the price of Li-ion batteries and electric vehicles to drop. Already, the popularity of electric vehicles is exploding. A build up of spent Li-ion batteries that powered them is expected, and soon.

Lead and cadmium based batteries pose the largest environmental concern. If batteries are not properly stored or disposed of they can short circuit, overheat and cause fires. If they end up in a landfill, heavy metal (lithium, cadmium, nickel) leakage can contaminate local soils, groundwater and streams and oceans. If incinerated they release toxic metals into the the atmosphere. Harmful toxins ingested by wildlife make their way up the food chain and into humans where they cause sickness and disease.

Waste Manager Mark has decided to accept small household batteries i.e used for flashlights, radios, watches, etc. Please wrap Li-ion batteries in plastic and cover the positive terminals on

Ni-Ca with tape. Mark will take them to one of the locations that collect batteries. You can also drop them off in Parksville or Qualicum at Canadian Tire, Parkswest, Pharmasave, Home Hardware and the Parksville Recycling and Bottle Depot.