HOW TO REDUCE WASTE

A TOOLKIT FOR MANITOBA FIRST NATIONS AND NORTHERN COMMUNITIES

HOW THE TOOLKIT CAME ABOUT

Starting or enhancing a waste management program can be daunting. Many communities express a sense of feeling overwhelmed by the number of organizations involved, amount of information, and resources required.

That recognition led to the idea of a toolkit to help communities assess their needs, guide them through the planning process, and provide an overview of how to implement a waste management program specific to their community and location.

The main focus of this toolkit is to help communities decide where to start and how to get started. It is intended to serve as a step-by-step guide that provides answers to common questions communities have when developing a waste management program.

Committee members that helped guide the toolkit's initial development included: Indigenous Services Canada, Manitoba Environment, Climate and Parks, Canadian Beverage Container Recycling Association, and Green Action Centre.

The toolkit is funded by Indigenous Services Canada, and prepared by Green Action Centre as part of the First Nations Waste Minimization Program.

greenactioncentre.ca/first-nations-waste-minimization/

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OVERVIEW OF WASTE MANAGEMENT

Within your community and landfill there are a variety of materials that can or should be removed. Some are hazardous and toxic while others can be reused or recycled.

Reducing the volume of waste materials going into your landfill or transfer station can have positive environmental and health benefits for your community. Extending the life of yourlandfill or transfer station through waste diversion can have long-term economic benefits.

BENEFITS OF REDUCING WASTE

WATER IS LIFE

Protect the water from the dangers posed by hazardous wastes seeping into the ground, lakes and rivers

MOTHER EARTH

Keep Mother Earth healthy for future generations

BEAUTY OF THE LAND

Preserve the natural beauty and health of the land, water, forests and wildlife

PROTECT CHILDREN

Protect your children and all community members from toxic or hazardous materials

CLEAN AIR

Make it easier to breathe by not burning plastics and other recyclables

SHARING IS CARING

Sharing gently used goods at low or no cost benefits everyone in the community

COMMUNITY PRIDE

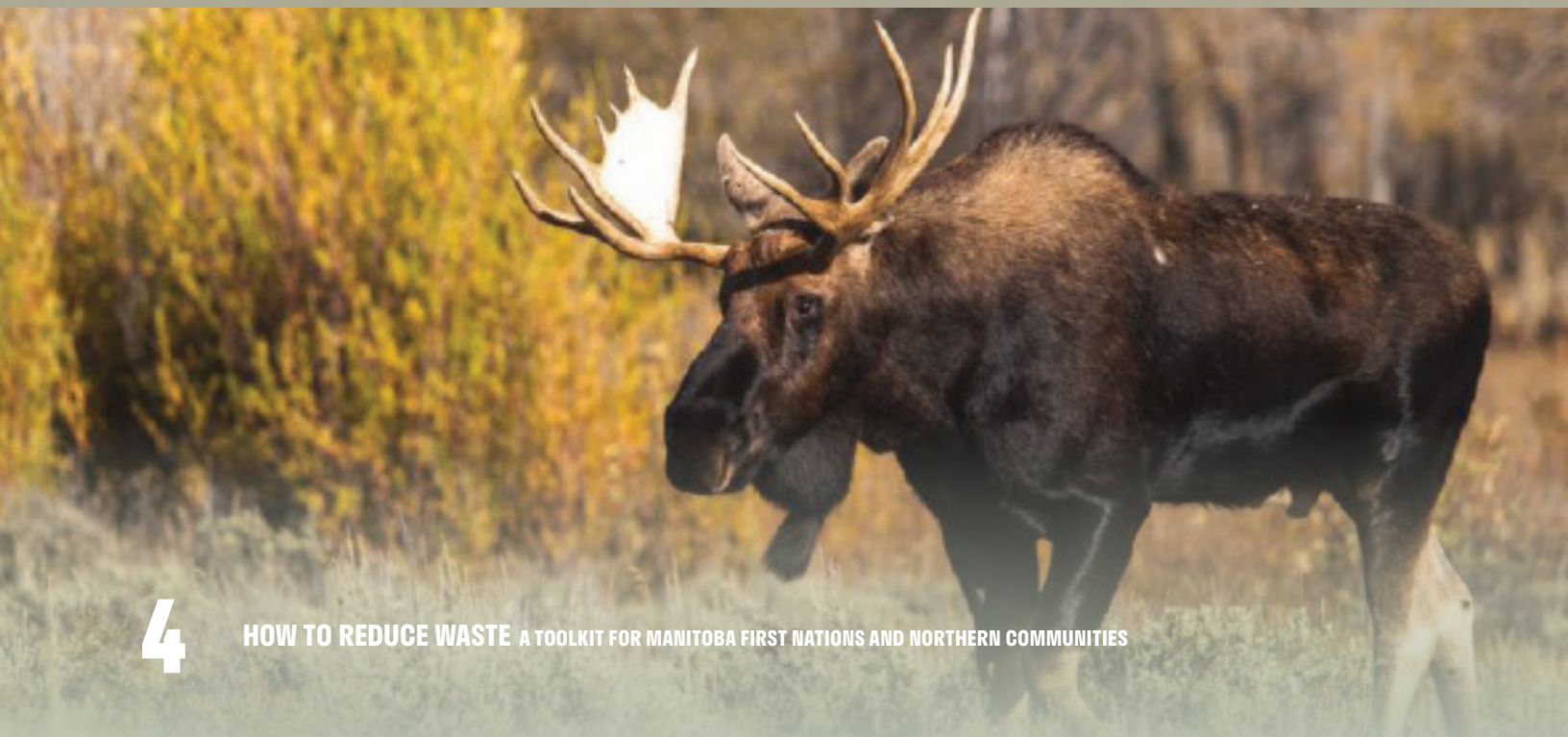
Reducing the amount of litter around your community and at the landfill helps everyone feel better

FREEDOM

Reducing the amount of stuff we buy saves money, reduces waste and frees us from having to keep up with the latest trends

FOOD SOVEREIGNTY

Growing food in the community provides fresh, healthy produce and reduces the amount of food packaging waste



THE 4R'S

There was a time when everything we threw away was bio-degradable. Over time, it would break down and return to the Earth. We repaired items when they broke down and we used them for a long time. Food was whole and came from our back yard or from nature.

Now we throw away more and more every year. There are many reasons for this. Food is bagged in plastic and delivered from far away countries. Products do not last as long and often cannot be repaired. Or we want the latest in technology and fashion.

A LOT OF WHAT WE THROW AWAY CAN BE REDUCED, RE-USED OR RECYCLED

In fact, anywhere from **50 to 90%** of the things we throw away could be re-used or recycled either into the same product or something totally new (like plastic pop bottles used to make fleece clothing). From paper and cans to used tires and cell phones.

There are also many dangerous toxins in products today that are harmful to humans and wildlife, and can contaminate the land, air and water. It is critical to safely handle and remove them from the community.

Note that throughout this toolkit, we use the words "waste site" or "landfill" instead of dump, and "waste" instead of garbage or trash. That way we can start thinking about all those items that can be re-used or recycled, and how to reduce the amount of waste reaching the landfill.

THE 4R'S DESCRIBE HOW TO MANAGE WASTE IN YOUR COMMUNITY

The 4R's are ranked in order, with Respect as the first priority followed by Reduce, Re-use and finally Recycle. Many times, people think first about recycling instead of reducing their waste. By focusing first on Respect, Reduce and Re-use, there will be less waste going to your landfill. Also, it places priority on dealing with the most dangerous and harmful materials.

RESPECT

The land, water and air are vulnerable to the negative impacts of waste.

FOR EXAMPLE, one litre of motor oil can contaminate one million litres of water. Burning plastic waste releases pollutants that are harmful for both people and wildlife.

TO THINK ABOUT
How does your landfill show respect for the land, water and air?

RE-USE

Many things can be used over and over again before they are thrown out.

FOR EXAMPLE, gently used items such as toys, clothes, furniture, sports equipment, and household goods can be shared with other community members. One person's leftover half-can of paint might be just what someone else is looking for.

TO THINK ABOUT
Where could you set up a spot at the landfill or in the community to share gently used items?

REDUCE

Choosing products that last longer, can be used more than once, and have less packaging can reduce how much we throw away.

FOR EXAMPLE, cloth bags can be used instead of single use plastic bags, and re-usable coffee mugs instead of paper or styrofoam cups. Some items can be repaired or can be used longer (such as waiting to upgrade your cell phone).

TO THINK ABOUT
How could you promote reducing waste to community members at home, in the community and at school?

RECYCLE

Some materials can be recycled and used again, or used to create new products.

FOR EXAMPLE, aluminum pop cans can be recycled back into new pop cans 1,000 times. Plastic pop bottles can be used to make something totally different like polyester fleece sweaters.

TO THINK ABOUT
What items in your community's landfill could be recycled?

INDUSTRY STEWARDSHIP ORGANIZATIONS

The Government of Manitoba has chosen an Extended Producer Responsibility (EPR) approach that engages industry to properly dispose of, manage and/or recycle designated waste products.

Manitoba has established 12 Industry Stewardship programs to address the safe disposal or recycling of the following materials:

- Beverage containers
- Cell phones and other mobility devices
- Consumer (household) batteries
- Electronics
- Farm chemical containers
- Household hazardous waste
- Lead batteries
- Mercury thermostats
- Packaging and printed paper (residential/ household recycling)
- Tires
- Unused medications
- Used oil and antifreeze, oil filters, and containers

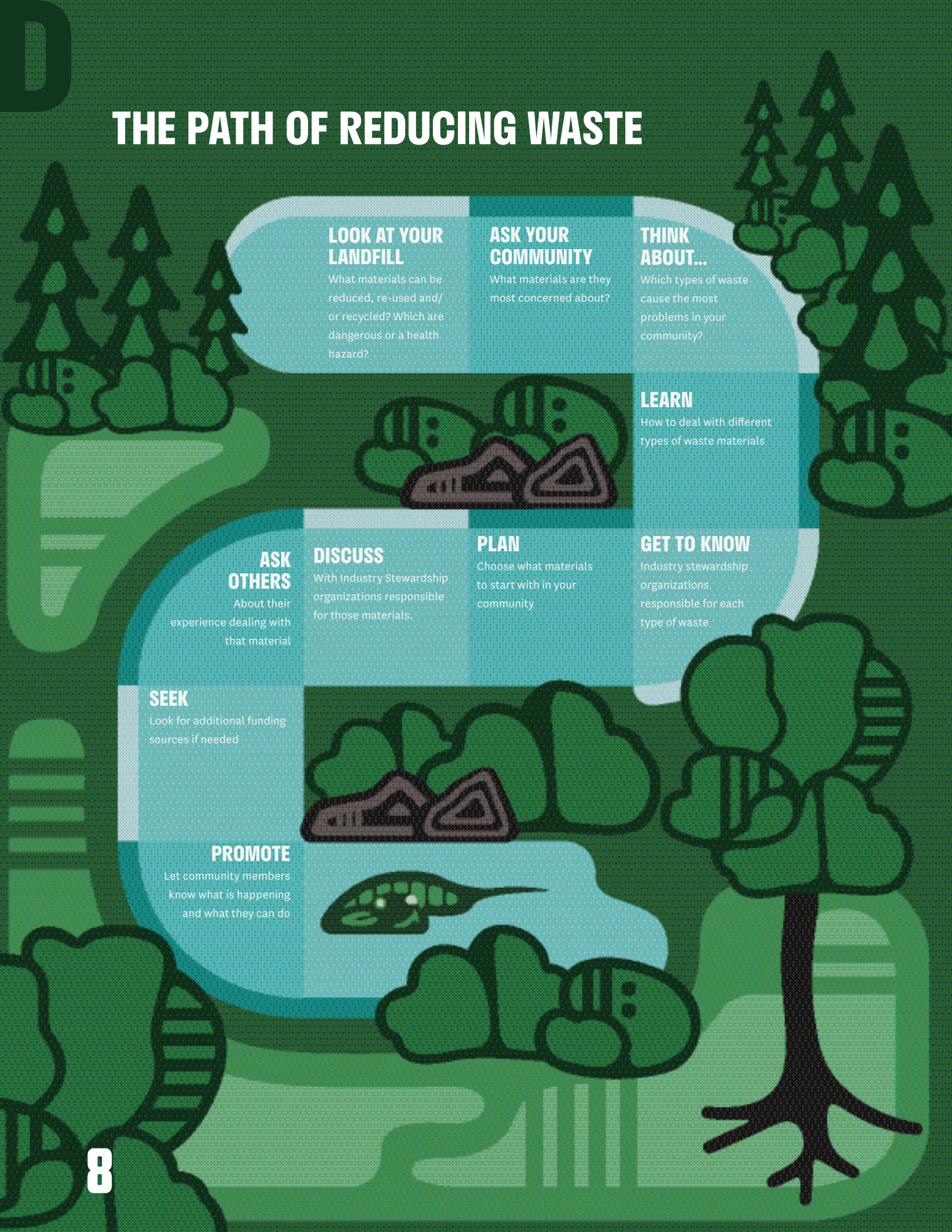
These programs are managed by a network of industry stewardship organizations. For general information on all 12 organizations, visit:

WWW.GOV.MB.CA/SD/MB_RECYCLING

This toolkit focuses on 8 of the 12 industry stewardship organizations. They deal with the types of materials your community is most likely to start collecting. The organizations include:

- Call2Recycle (single use and rechargeable batteries)
- Tire Stewardship Manitoba (scrap tires)
- Canadian Battery Association (lead vehicle batteries)
- MARRC - Manitoba's Used Oil & Antifreeze Recycling Program (used motor oil, antifreeze & containers)
- Product Care Association of Canada (household hazardous waste)
- Electronic Products Recycling Association (electronic waste)
- Multi-Material Stewardship Manitoba (residential recycling - packaging and printed paper)
- Canadian Beverage Container Recycling Association - Recycle Everywhere (beverage containers)

THE PATH OF REDUCING WASTE



LOOK AT YOUR LANDFILL
What materials can be reduced, re-used and/or recycled? Which are dangerous or a health hazard?

ASK YOUR COMMUNITY
What materials are they most concerned about?

THINK ABOUT...
Which types of waste cause the most problems in your community?

LEARN
How to deal with different types of waste materials

GET TO KNOW
Industry stewardship organizations responsible for each type of waste

PLAN
Choose what materials to start with in your community

DISCUSS
With Industry Stewardship organizations responsible for those materials.

ASK OTHERS
About their experience dealing with that material

SEEK
Look for additional funding sources if needed

PROMOTE
Let community members know what is happening and what they can do

REALITY CHECK

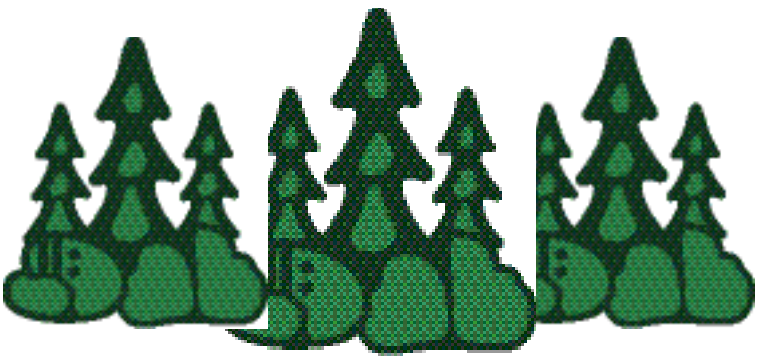
When planning how to reduce waste in your community, here are a couple of "reality checks" to consider. Avoid frustration or disappointment later by reading these now.

1. Recognize that you will not likely make money from recyclable materials.

There are many good reasons to safely handle and reduce waste in your community but creating revenue is not one of them.

2. Consider starting with collecting old cell phones, household batteries, tires or electronic waste.

While many communities want to start with residential recycling ("blue box"), it can be challenging. The materials listed above are more straightforward.



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GETTING COMMUNITY SUPPORT

COMMUNITY INVOLVEMENT

A waste reduction program is easier to do with support from all levels – Chief, Council, landfill staff, teachers and community members. It's also more likely to be successful and last over time.

HERE ARE A FEW WAYS TO BUILD SUPPORT

- Educate community members on how to reduce and re-use items. Increase awareness of what can be recycled and why it's important to participate. Let them know which items are hazardous and how to deal with them safely.
- Make it simple and easy for people to take part in your waste reduction and recycling program, so that it gets off to a positive start. Then everyone can be proud of and share in its success.
- Install bilingual signs at the landfill to show where different types of materials are being collected (such as tires, used oil, household hazardous waste, electronics). Work with an Elder or language holder to translate the signs.
- Let residents know how much recyclable and hazardous materials were removed from the landfill with a community celebration event, such as a BBQ, waste reduction bingo or feast. Show them how they have helped and how they can continue this great work in the community.

LOCAL CHAMPIONS

Find local champions who are passionate about the environment and the community:

- Ask youth to help get community support for new waste reduction initiatives, especially kids who are already involved with other community issues, such as Junior Chief & Council.
- Enlist the help of attendees at presentations or events to assist with sharing information and identify what waste materials to focus on.
- Talk to community members who are most unhappy about the current waste situation.

MEET SOME LOCAL CHAMPS

HILDA MCKAY-CANARD

Community champion Hilda McKay-Canard has organized more than 20 clothing giveaways in her community of Sagkeeng First Nation. Check out this video to hear from Hilda:

YOUTUBE.COM/WATCH?V=UEGG7W_4KD8&T=15S

SOLOMON MASON

Solomon played a key role in St. Theresa Point First Nation for many years. Among many initiatives, he started a recycling program to haul scrap vehicles out of the community. This led to a project to burn used oil to heat their fire truck garage. A second oil burner added in 2020 heats their vehicle recycling and repair garage.

ANDREA MCKAY-MASON

Andrea started a composting program at Charles Sinclair Elementary Schoo in Fisher River Cree Nation, with compost bins built by the Industrial Arts teacher. Students help collect food waste from the school and add the scraps to the compost bins. Check out this video to learn more:

YOUTUBE.COM/WATCH?V=0VG6LXGR8PY

IDEAS TO REDUCE WASTE AND ENCOURAGE RE-USE

Ideally, the goal is to reduce the amount of waste coming into your landfill in the first place. This ties into "Reduce" and "Re-use" from the 4R's.

Encouraging community members to reduce and re-use at home, in the community and at school means fewer materials that you will have to collect and transport out of your community.

Here's a variety of ideas and events you can implement in your community to reduce waste and encourage re-use:

HOLD A COMMUNITY SWAP EVENT

This is an event for community members to share and swap gently used goods they no longer use. For example: books, CDs and DVDs, clean clothes, toys, household items (like lamps, dishes, tools), and sports equipment.

SET UP A COVERED STORAGE AREA FOR RE-USABLE ITEMS

Designate a location in the community or at the landfill for community members to drop off re-usable items such as: functional household appliances, windows, doors, building materials, toys, clothes, furniture, and electronics that are in good working condition.

PROMOTE RE-USABLE ITEMS

Distribute re-usable shopping bags and coffee travel mugs to community members at a community celebration or event. Set up a program at the local store to charge for plastic bags to help encourage use of re-usable bags. Encourage "litterless" lunches with re-usable food containers for kids to take to school.

USE ALTERNATIVES TO SINGLE USE PLASTICS

Instead of using individual plastic bottles, purchase large, refillable water jugs with a pump or stand for use at community events.

HOST REPAIR WORKSHOPS & SKILL TRAINING EVENTS

Ask community members who know how to fix small appliances, mend clothes, or repair bikes to help teach others. Organizations such as the W.R.E.N.C.H. (www.thewrench.ca) offer community or school workshops on basic bike repair and tune-ups.

HOLD A SPRING CLEAN-UP

Putting on a spring clean-up is a great way to get community members involved and learning how to reduce, re-use and recycle waste.

CONDUCT A WASTE AUDIT

Doing a waste audit at the landfill or at the school can help to figure out what types of materials to focus on. See this YouTube video on how to conduct a waste audit at a school:

HTTPS://WWW.YOUTUBE.COM/WATCH?V=L8J_1FARHDS&T=1095S

START A COMMUNITY GARDEN

Growing food locally helps cut down the amount of waste from packaged food and reduce air pollution from long distance transportation. Plus, food tastes way more delicious and fresh!

ADD COMPOSTING AT THE COMMUNITY GARDEN

Start composting at your community garden to make the circle complete - grow food, eat food, compost food then add the finished compost to the garden to grow more food.

ORGANIZE A CLOTHING DRIVE

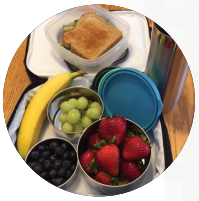
Sharing gently used clothing is a fun and easy way to change up your wardrobe, save money and reduce waste.

MAKE YOUR OWN FEAST BUNDLE BAG

Create a personalized bag from an old pillow case and use it to carry your own re-usable plate, cutlery and cup to community feasts. This helps reduce the amount of styrofoam dishes used at events.

SWITCH TO REAL DISHES

Stock the community centre with real cups, plates and cutlery for events. Purchase them from a thrift store or through community donations.



MAKE LITTERLESS LUNCHES

Skip the saran wrap and the prepacked cheese and salami. Try re-usable food storage containers and drink bottles instead.

GET KIDS INVOLVED

Teaching children about reducing waste and recycling through school workshops was highly effective at Charles Sinclair Elementary School in Fisher River Cree Nation. Kids were kinder to Mother Earth and influenced their parents to reduce waste as well.

ASK COMMUNITY MEMBERS ABOUT THEIR WASTE DISPOSAL HABITS

Learn what community members are currently doing with their waste and recyclable items. This will help identify waste management needs in your community.

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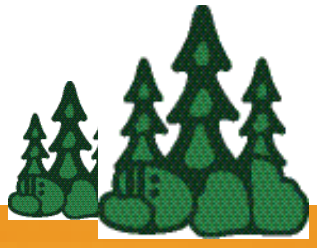
COMMUNITY HIGHLIGHTS

Here are some highlights about reducing waste and recycling from Manitoba First Nation communities that Green Action Centre has interacted with.

If you have a story to share from your community, let us know at FNWM@GREENACTIONCENTRE.CA and we'll add it to our website.



BUFFALO POINT FIRST NATION

HOUSEHOLD HAZARDOUS WASTE

Even before the FNWM team worked with Buffalo Point First Nation there was community interest in diverting Household Hazardous Waste (HHW) in the form of paint, fluorescent lights and aerosols. Thanks to the commitment of the waste team in Buffalo Point they have begun collecting more products which fall under the HHW umbrella. In 2022, Product Care picked up 4 tubskids of paint from Buffalo Point First Nation, and in 2023 the waste management team had collected another 2 tubskids of paint, as well as a half drum of single use propane canisters and another half drum of aerosols.

BUNIBONIBEE CREE NATION

RESIDENTIAL RECYCLING

In 2024 the Waste Management Team collected and baled 60 bales of cardboard, these bales will be sent on the winter ice road.

GARDEN HILL FIRST NATION

END-OF-LIFE (SCRAP) VEHICLES

In the past 5 years (2018-2023) Garden Hill has been able to fully/partially de-pollute about 1700 ELVs, some of these have been crushed and in early 2023, 219 crushed vehicles were sent to Gerdau Steel Mill for recycling.

FISHER RIVER CREE NATION

SCHOOL COMPOSTING

In 2021, Charles Sinclair Elementary School started composting. Hear details about the school's initiative in this video:

YOUTUBE.COM/WATCH?V=0VG6LXGR8PY

WASAGAMACK FIRST NATION

LEAD BATTERIES

In January 2024, members of the FNWM Team visited Wasagamack First Nation to provide support in their Backhaul efforts.. During this visit, Pathfinders helped develop a load plan of where to place different waste materials on the semi trailer, and also helped palletize and shrink wrap 2 pallets of lead acid batteries (approximately 80 batteries total). These pallets will be backhauled to Winnipeg on the 23/24 winter road. The Wasagamack First Nation waste management team also shipped out two pallets of lead acid batteries as part of their 2022/2023 Backhaul effort as well.

PEGUIS FIRST NATION

ELECTRONIC WASTE

In August 2023, Pathfinders traveled out to Peguis First Nation to help package and stage e-waste that had been collected over the span of a few years. The e-waste was loaded onto pallets which were wrapped and moved by skid steer for pickup. In Fall 2023, 23 pallets were picked up by EPRA (Electronic Products Recycling Association) and sent to Exner E-waste to be properly recycled. Peguis has been a registered collection depot with the Electronic Products Recycling Association since the Spring of 2018.

LITTLE SASKATCHEWAN FIRST NATION

SCRAP METAL

In November 2023, the waste management team in Little Saskatchewan First Nation managed to remove two 40 yard bins of scrap metal from their transfer station site for recycling. Waste Connections came out to do the pick up. Keeping the scrap metal in bins means less storage issues at the transfer station and is a quicker, less labor intensive way of removing scrap metal once the bins are full.

BLACK RIVER FIRST NATION

COMMUNITY EVENT

In July 2023, Pathfinders and staff from Winnipeg Trails visited Black River First Nation to host a Bike Repair workshop; repair being one of the 7 R's of waste reduction. The Winnipeg Trails team led the bike repair workshop while Pathfinders organized fun and competitive races on the speed, skill, and race courses they designed. To support continued learning and interest in bike maintenance, we left excess bike parts and tools at the recreation centre for all to use.

ST. THERESA POINT FIRST NATION

USED OIL BURNER

In 2020, St. Theresa Point First Nation partnered with the industry stewardship organization MARRC to install their second used oil burner in the community, which now heats their vehicle recycling and repair garage.

PINE CREEK FIRST NATION

MATTRESS RECYCLING PILOT PROJECT

In October 2023, Pathfinders rented a 26 foot box truck and drove out to Pine Creek First Nation to help tackle an overflow of mattresses. Mattresses are a tricky waste material to divert because they are a non-stewarded material, meaning the community has to cover the cost if they wish to divert this waste stream from their waste site. In total, 66 mattresses were processed at Mother Earth Recycling.

BUNIBONIBEE CREE NATION

TIRES

In 2022/23, Bunibonibee Cree Nation collected and backhauled a whole semi-truck load of tires (about 900). The tires were staged which helped reduce the amount of snow and water which would make them heavier to load. In 2023/24 Bunibonibee collected another full semi-truck load of tires and had them staged and ready to be backhauled on the winter road.

WASTE COORDINATOR MEET-UPS

MULTIPLE COMMUNITIES

Waste and recycling coordinators from 9 communities FNWM works with traveled to Winnipeg to meet about issues and topics related to the work they do in their communities and to begin planning how to work together more formally.

WHITE GOODS PILOT PROJECT

MULTIPLE COMMUNITIES

4 lbs of refrigerant gas was collected from 117 depolluted units in Bunibonibee Cree Nation. 25 lbs of refrigerant gas was collected from 223 units depolluted in Wasagamack and St. Theresa Point First Nations. These units will be backhauled on the winter road and properly recycled in Winnipeg.

GREENACTIONCENTRE.CA/FIRST-NATION-SCHOOLS/

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DEALING WITH WASTE MATERIALS

Ready to start managing waste? Want to tackle another type of material? Here are the basics on how to safely collect, handle, store, and transport the most common materials at your landfill, and where you can find more information to get started.

Some of the easier materials to start with include: old cell phones, consumer (household) batteries, tires and electronic waste.

a. Composting (Organic Waste)
b. Consumer (Household) Batteries
c. Electronic Waste and Cell Phones
d. End-of-Life (Scrap) Vehicles
e. Household Hazardous Waste
f. Lead Batteries
g. Major Appliances (White Goods)
h. Mattresses and Box Springs
i. Residential (Household) Recycling and Beverage Containers
j. Scrap Metal
k. Tires
l. Used Motor Oil, Antifreeze and Containers

COMPOSTING

Organic waste, which includes leaf and yard waste, food waste and soiled paper products, can represent up to 50% of a community's waste stream. If organic waste is placed directly into the landfill, it leads to the production of methane which heavily contributes to climate change.

By diverting organic waste through composting, a naturally occurring process by which organic materials slowly rot and decompose, harmful methane emissions can be reduced.

There are multiple ways to set up a successful composting system and those are dependent on the scale of material being diverted, type of organic material being diverted, and what the desired goal for the compost is. You can divide your methods into backyard composting, vermicomposting, school composting, and community/landfill composting.

There is no registration required with an industry stewardship organization for composting. However, there are multiple good resources available to help you and your community choose the right method for composting. Knowing the desired size of the composting operations, types of organic materials desired to be composted and what the compost will be used for can help you narrow which resources might be the most helpful. Long cold winters and animals that might be attracted to compost smells should also be an important factor when choosing composting methods in Northern Manitoba.

COMPOSTING TRAINING AND RESOURCES:

- SWANA Composting Training:
  SWANA.SWOOGO.COM/COMPOSTING-MAY
- Green Action Centre Master Composter Training:
  GREENACTIONCENTRE.CA/MODULE/COMPOSTING-2/BECOME-A-MASTER-COMPOSTER/
- Composting North of 60:
  YELLOWKNIFE.CA/EN/LIVING-HERE/RESOURCES/COMPOSTING/COMPOSTING_NORTH_OF_60.PDF
- Green Action Centre Composting:
  GREENACTIONCENTRE.CA/COMPOSTING-RESOURCES/

COMMUNITY / LANDFILL COMPOSTING

The Saskatchewan Waste Reduction Council's presentation for small scale community composting can help your landfill or community choose a composting method that best serves your organic waste streams. The methods described in this resource are meant for larger scale composting efforts happening at a landfill location or community wide centralized composting location. Find the methods in the presentation titled "Small Scale Composting" here:

SASKWASTEREDUCTION.CA/EVENTS/SWRC/COMPOST-FIELD-DAY-2016/

Composting done at a centralized community wide area such as a landfill can vary significantly in cost, space required, odour that may be generated, time necessary to create finished compost and the skills needed to operate the composting facility.

The table on the next page shows an overview of different composting methods, type of aeration required, starting costs, odour control, and relative time to compost.

Here are resource links associated with each:

STATIC PILES
O2COMPOST.COM/USERFILES/PDF/WALLA-WALLA-ASP-PILOT-PROJECT-FINAL-REPORT-06-29-15.PDF

AERATED STATIC PILES
BIOCYCLE.NET/DESIGN-CONSIDERATIONS-IN-AERATED-STATIC-PILE-COMPOSTING/

WINDROWS
SASKWASTEREDUCTION.CA/RECYCLE/RESOURCES/COMPOSTING/LARGE-SCALE-COMPOSTING/COMPOST-CASE-STUDIES-U-OF-S-WINDROW-AND-DEHYDRATOR

COVERED PILES
SASKWASTEREDUCTION.CA/ASSETS/UPLOAD/IMG/RESOURCES/COMPOSTING/CASESTUDIES/HOP-CASESTUDY-HOTROT-58D1860F40E74.PDF

AGITATED BEDS
SASKWASTEREDUCTION.CA/ASSETS/UPLOAD/IMG/RESOURCES/COMPOSTING/CASESTUDIES/HOP-CASESTUDY-HOTROT-58D1860F40E74.PDF

CHANNELS
SASKWASTEREDUCTION.CA/ASSETS/UPLOAD/IMG/RESOURCES/COMPOSTING/CASESTUDIES/TRU-CASESTUDY-JORA-58D185FF1082E.PDF

IN-VESSEL SYSTEMS
SASKWASTEREDUCTION.CA/ASSETS/UPLOAD/IMG/RESOURCES/COMPOSTING/CASESTUDIES/MALASPINA-CASESTUDY-ROCKET-58D1860B4A92F.PDF

COMPOSTING METHODS	AERATION	RELATIVE COSTS	ODOUR CONTROL	RELATIVE TIME TO COMPOST
Static Piles	Passive or mechanical turning	Low	Low	6 to 24 months
Aerated Static Piles	Positive/ negative aeration, passive	Mid	Low	4 to 12 months
Windrows	Turning and passive	Low to Mid	Low	4 to 6 months
Covered Piles	Positive aeration, passive	Mid	Mid	2 to 4 months
Agitated beds	Agitation, mechanical turning, passive	High	High	2 to 4 months
Channels	Mechanical turning, passive	High	High	2 to 4 months
In-vessel systems	Mechanical turning, positive/ negative aeration	High	High	2 to 4 months

BACKYARD COMPOSTING

Backyard composting has the benefit of requiring little equipment and many other benefits such as producing natural fertilizer for gardens. Composting North of 60 is a great resource to use in Northern Manitoba because it considers how compost is affected by cold winters (see link below).

BACKYARD COMPOSTING GUIDE
GREENACTIONCENTRE.CA/WP-CONTENT/UPLOADS/2010/09/BACKYARD-COMPOSTING-BOOKLET-_1LOGO_WEB.PDF

COMPOSTING NORTH OF 60
YELLOWKNIFE.CA/EN/LIVING-HERE/RESOURCES/COMPOSTING/COMPOSTING_NORTH_OF_60.PDF

BACKYARD COMPOSTING BINS

A composting bin can be purchased or can be easy to build. It can be built out of wood, mesh or concrete blocks. One can always use a modified old barrel or garbage can. It is important to note that treated wood should not be used to build a composting build because chemicals can leach out and get into your compost. However you choose to build your composting bin, it is important to ensure that the bin allows for easy access to the compost, has air gaps at the sides of the bin, and that the unit is open to the ground underneath to allow for drainage.

To collect your kitchen scraps, you can use an old margarine tub or ice cream pail. To keep scrap sticking to the bottom of your kitchen container, you can line your container with newspaper. When the container is full, it is time to throw it in your backyard composter!

WHAT CAN I PUT IN THE BACKYARD COMPOST BIN?

Composting can be like baking because one needs to add the right amount of ingredients. When it comes to backyard composting, the goal is to add equal portions of ‘greens’ (materials that are high in nitrogen) and ‘browns’ (materials that are high in carbon). It is important to know that compost will freeze at constant -40 C temperatures, however, you can continue to collect organic greens and browns and place them outside your house in a garbage can so that they can freeze. To unfreeze your compost bin in early spring and get the microbes working again at decomposition, place a tarp or plastic sheet over your compost to trap the heat.

GREENS	BROWNS	AVOID PUTTING THESE IN YOUR BACKYARD COMPOSTER
Vegetables/ fruit peels & scraps	Dried leaves & brown grass clippings	Meat, fish and bones as they can attract animals
Coffee grounds, teabags	Pine and spruce needles	Dairy products in large quantities as they can make the compost smell bad
Green grass clippings	Paper, cardboard and newspaper	Fat, oil and grease in large quantities as it can slow down the process of decomposing
Green Garden Waste	Prunings & cuttings	Feces (kitty litter, dog, human) as it can contain pathogens
Flowers	Sawdust from untreated wood	Weeds with seeds or persistent roots
	Straw	Diseased plants
		Ash and sawdust from chemically treated or painted wood

NOTE: You can add eggshells to increase the amount of minerals in your compost.

HOW TO SET UP YOUR BACKYARD COMPOSTER

1. Choose a convenient, level, well-drained and sunny area on soil in your yard for your composter. Make sure it is easy to access during winter.
2. Make a compost bin or buy a ready-made bin and set it up. Having a lid or cover can help keep animals and birds out.
3. Place a layer of 'brown' materials such as dry leaves or shredded paper in the bottom of your composter.
4. Add a layer of 'greens' such as kitchen scraps and yard trimmings.
5. Continue to add greens and browns in roughly equal portions, while alternating layers.
6. Harvesting Finished Compost

HARVESTING FINISHED COMPOST

In about two summer seasons, there should be a dark crumbly soil-like material at the bottom of your compost pile. You can access this rich fertilizer by digging it out of the bottom of your composter or by lifting up your bin.

VERMICOMPOSTING

Vermicomposting uses worms to compost food materials. One of the helpful benefits of vermicomposting in Manitoba is that this process can occur year-round. The worms used for vermicomposting are red wiggler worms, which survive at room temperature and eat the scraps that would normally be placed in a backyard composter.

VERMICOMPOSTING GUIDE: WORMS WORKING FOR YOU!

GREENACTIONCENTRE.CA/WP-CONTENT/UPLOADS/2020/06/VERMI_8PG_1LOGO_JUL2016_WEB.PDF

VERMICOMPOSTING BIN

You will need a shallow plastic container like a Rubbermaid bin.

A storage container that is about 60cm x 40cm x 22cm or (36L) is a good size to begin with. You can always expand by adding other bins if needed. The bin should have holes for air circulation. In addition to holes for air circulation, it is important to make holes at the bottom of your container to help drain moisture or else worms will try to get out due to dampness. The container should be placed on a tray or a bigger container to catch the extra moisture which can be discarded when necessary. The bin should also include dry bedding for the worms which can include: shredded newspaper or cardboard, sawdust, leaf compost or peat moss. It is recommended that the bedding is kept as moist as a well-wrung sponge and that there is a constant supply of bedding replaced inside the container.

FEEDING THE WORMS

You can use an old ice cream pail or a small container to collect food scraps for the worms. The worms do not need to be fed in any particular schedule. When you feed the worms make sure you add the food to one corner of the bin until you reach the other corner. Next time you feed the worms, make sure you begin at the corner where you added food the first time. By seeing how much food is left in that corner you can get a good sense of how much the worms have eaten. If there is a lot of uneaten food in your corner, make sure that you wait a couple of days before adding more food. When adding more food, make sure that it is buried into the worm bed in order to prevent fruit flies.

HARVESTING VERMICOMPOST

The compost in your bin will be ready to be harvested in about 4 to 6 months. The final product should resemble a rich black soil like substance. In order to get only the product and not the worms, move the compost to one side of the bin and place fresh bedding on the other side. By placing fresh food and bedding on one side the worms will slowly move to that side of the bin leaving the finished compost ready to be removed.

WORM FOOD CAN INCLUDE

- Fruit and vegetable scraps
- Plate scrapings
- Spoiled food
- Tea bags, coffee grounds and filters
- Breads, rice and pastas

DO NOT INCLUDE

- Meat, fish or bones
- Dairy products
- Greasy, fatty, or oily food
- Egg shells
- Lots of citrus

SCHOOL COMPOSTING

Involving your school in composting requires coordination but it is very rewarding to see students and school staff come together to reduce food waste. Involving key individuals from the start, such as students, cafeteria, janitorial staff, teachers and the principal, is key for a successful composting program. Understanding which method to use and how to involve individuals in the composting method could be a great way to begin developing a school composting program. Backyard composting and vermicomposting both work well for schools.

Check out these two videos for examples of school composting:

- School Composting in Fisher River Cree Nation: YOUTUBE.COM/WATCH?V=0VG6LXGR8PY&T=2S
- Composting at Greenway School: YOUTUBE.COM/WATCH?V=EDIQQE0GVA0

GETTING BUY-IN FROM SCHOOL STAFF AND PARENTS

The custodial and kitchen staff should be at the beginning of any sort of planning to move towards composting. It is key that they understand the process and are on board. They should have input on:

- Location of collection pails and bins
- Determining a system to collect waste in the cafeteria/kitchen

COMMUNICATION PLAN

Clear communication and having a plan are especially important, for example, organizing a lunch hour or after work meeting to go over the basics.

Other ideas to clearly communicate the plan include:

- Presenting in the classroom, with costumes and props, to explain the process needed to successfully compost
- Holding a daily draw prize to get students motivated to participate
- Connecting composting with already existing celebrations
- Forming a school compost club

COMPOST MAINTENANCE

Usually, schools deal with a large volume of organic materials, so having a rotation method with a multi-bin composting or multiple single bins is a simple yet effective way to manage the volume of materials. This method consists of creating layers of greens and browns and aerating in one bin before moving on to another. Once a bin is full, stop adding food but continue to aerate and check moisture so that decomposition is accelerated. You can call that pile the maturing pile. Meanwhile you can start a different bin and follow the same layering and aerating process. The third bin can be used to store brown materials such as dead leaves or sawdust. This method can be scaled up or down depending on the volume of organic materials being produced by your school.

COMPOSTING IN WINTER

During winter your compost pile will most likely freeze which means that there is no need to add browns but you can keep adding green materials on top of the frozen pile in the bin. Once the pile begins to thaw in the spring; materials will decompose faster which means that browns should begin to be added again to restart the process.

SUMMER PLANS

During summer months the volume of organics will slow down significantly and the required maintenance becomes less. However, to keep pests away and continue the composting process, have a designated volunteer such as custodial staff or a teacher continue turning the pile periodically and adding water if the summer is particularly dry.

- Discuss summer plans with students, or staff
- Make sure volunteers have access to all necessary equipment
- Plan for one or two visits per month which should be sufficient depending on the weather. You can pre-schedule visits to ensure commitments.

USING COMPOST

If you are using the multi-bin rotating method, you should have finished compost approximately one year from the onset of the school composting program. You can also tell if the compost is ready to use if it has a rich dark brown color and smells earthy.

CONSUMER (HOUSEHOLD) BATTERIES

Consumer batteries are among the easiest materials to collect in your community for recycling. Call2Recycle will cover the cost of shipping consumer batteries from your community if you become a collection partner and follow their guidelines.

Call2Recycle accepts dry-cell batteries, rechargeable or single-use, weighing less than 5 kg each. The products collected through the program are defined in the Manitoba Household Hazardous Materials and Prescribed Stewardship Regulation:

WEB2.GOV.MB.CA/LAWS/REGS/ANNUAL/2010/016.PDF

Information based on: Landfill/Transfer Station Design Requirements for Stewardship Materials, The Backhaul Project (May 2019). Updated June 2022.

BATTERY CHEMISTRIES ACCEPTED INCLUDE

- Nickel Cadmium (Ni-Cd)
- Nickel Metal Hydride (Ni-MH)
- Lithium Ion (Li-Ion)
- Nickel Zinc (Ni-Zn)
- Small Sealed Lead Acid
- Portable Power Banks
- Lithium Primary
- Alkaline/Carbon Zinc (AA, AAA, 9V, etc.)
- Zinc Air
- Silver Oxide

BATTERIES SOLD IN OR WITH A PRODUCT ARE ALSO ACCEPTED. THESE INCLUDE

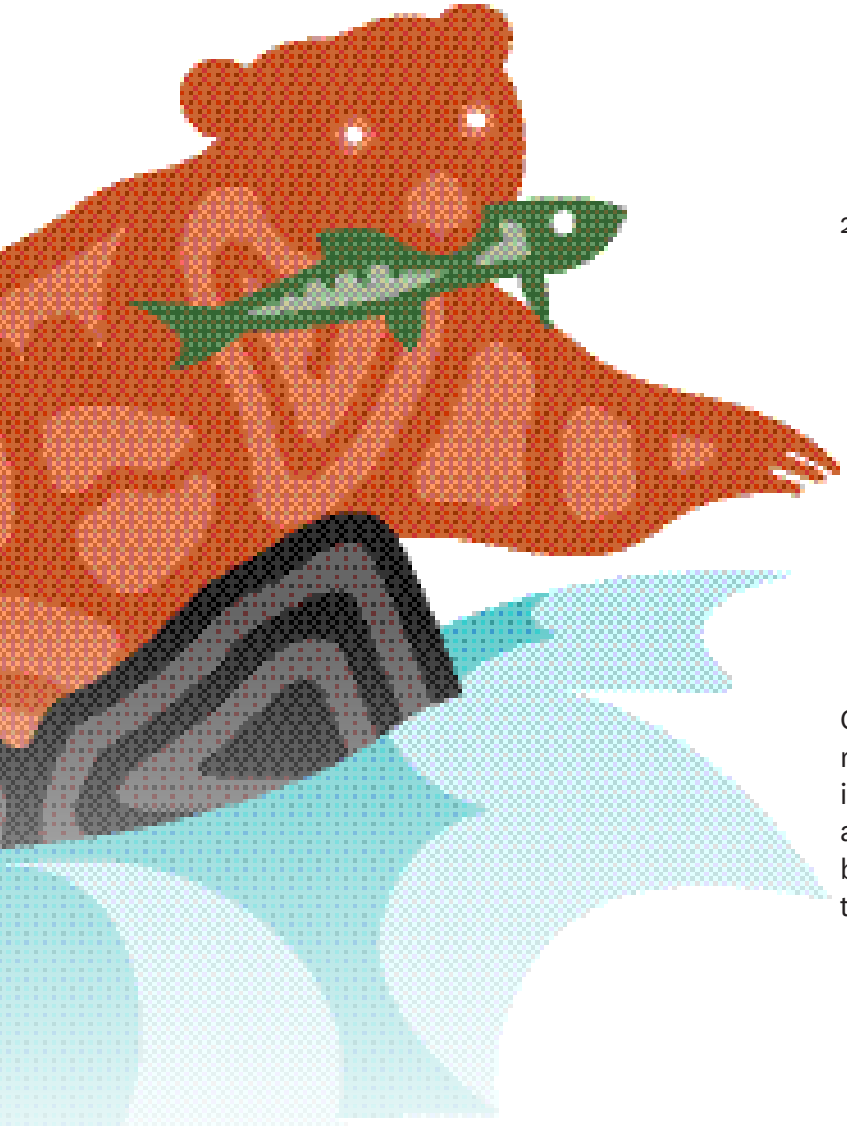
- Garden tools
- Construction/renovation tools
- Smoke and CO alarms
- Portable flashlights and spotlights
- E-toys
- E-mobility, such e-bikes, e-scooters, e-skateboards, and e-hoverboards (Note: Specialized handling is required for e-mobility batteries. Please contact Call2Recycle for guidance.)

01 REGISTRATION

The first step is to register as a collection partner with Call2Recycle. You can find the link to the registration page and more information here:

CALL2RECYCLE.CA/BECOME-A-COLLECTION-PARTNER/

If you are a winter-road access only community participating in the backhaul program, let Call2Recycle know when you register so they can assist in navigating how to store materials and adjust your transport needs.



02 COLLECTION & TRAINING

There are two options for consumer battery collection and storage:

1. Box Program - The box program option (see photo of collection box on page 1) is designed for small volume generators. Call2Recycle provides a custom made cardboard box with a fire retardant liner for storage and shipping consumer batteries. Each box is approximately 12" x 12" x 12" when packed for shipping and holds a maximum of 30 kilograms. The box is used for storage and shipping the consumer batteries. The program will cover the Postage/Courier costs. Place your collection box in a public space such as the band office and let community members know where they can bring their old batteries.
2. Bulk Storage and Shipping - Bulk shipping is designed for sites that collect high volumes of batteries such as 250 kg or more per shipment. Sites can use their own drum or receive Call2Recycle collection boxes to ship back collected materials. The drum must be a 205-litre UN rated open-top plastic, steel or metal drum with a snap or clamp lid. Steel or metal drums must be poly-lined. Note that Call2Recycle does not provide UN rated 205 litre drums or poly-liners.

Call2Recycle provides program specific training material. The training material includes instruction on the types of consumer batteries accepted by the program, which consumer batteries require terminal protection, and how to properly protect terminals.

03 STORAGE & EQUIPMENT

Consumer battery containers should be stored in a dry location protected from the elements. Heated storage is not required and the batteries may be stored with other materials.

Some types of batteries need to have the terminal ends taped off before placing them in the collection box to prevent sparking. Make sure to safely store the batteries by either:

1. Covering the terminals* - with clear packing tape, duct tape or electrical tape (avoid covering the battery label); or
2. Bagging & Sealing - place each* battery in a clear, sealable/zipped bag. Zip-seal or produce bags are recommended.

* Multiple cylindrical alkaline batteries may be wrapped together.

The Minimal Terminal Protection Quick Reference Guide for Boxes tells you which battery terminals to tape off. Find details here:

CALL2RECYCLE.CA/SAFETY-TIPS/

STORAGE SPACE REQUIREMENTS:

- For communities using the box program, space is needed to display the battery collection box and store extra boxes.
- For communities collecting in bulk, space requirements should accommodate either one 205 litre drum on a pallet or up to 27 program collection boxes consolidated on a pallet (48” x 40”).

Call2Recycle provides collection boxes and plastic bags for terminal protection of consumer batteries. However, there are a number of other supplies you may need that Call2Recycle does not include. Supplies needed will vary depending on the amount of material being shipped (collection boxes or bulk collection).

- Battery collection boxes will require non-conductive tape (duct tape or electrical tape) or extra plastic bags for terminal protection.
- Bulk storage will require non-conductive tape (duct tape or electrical tape) or extra plastic bags for terminal protection; UN rated 205 litre plastic, steel or metal drums (steel and metal drums must be poly-lined); a pallet to place the drum on; shrink wrap to secure the drum to the pallet; and a pallet jack, forklift or skid steer to move and load the pallet onto a truck for removal from the community.

Damaged batteries should not be packed with undamaged batteries. If you have damaged or corroded batteries special Transport Canada-approved packaging is required for shipment. Contact Call2Recycle’s Customer Service at 1.888.224.9764 for assistance. Call2Recycle provides kits to manage damaged consumer batteries that are independent of a device. While waiting for the kit to arrive, the damaged batteries should be placed in a non-flammable material such as sand or kitty litter.

04 TRANSPORT & REMOVAL

For the box collection program, each box comes with a postage paid Purolator label. If Purolator doesn't serve your community, other arrangements will be made. Contact Call2Recycle for direction.

Winter-road access communities may ship full program storage boxes or storage drum on an annual basis. Note that Purolator does not service winter-road access communities in Manitoba. Contact Call2Recycle for direction.

For the bulk program, shippers in all weather-road access communities must complete the Call2Recycle online Bill of Lading Wizard (CALL2RECYCLE.CA/BULK/) to request pick-up. The community must have a minimum of 250 kg (1 full drum) or 27 full program collection boxes of batteries consolidated on a pallet to ship in bulk.

05 RECORD KEEPING

Record keeping for Call2Recycle is a simple process. Prepaid Purolator shipping labels come pre-affixed to the collection boxes. If you are a road-accessible community, you will automatically be sent new empty collection boxes once your boxes are received at the sorter. If you need to order additional collection boxes, you can fill out the online order form here:

CALL2RECYCLE.CA/RE-ORDER-COLLECTION-MATERIALS/

For bulk shipments, Call2Recycle requires that collection sites retain records for shipments of batteries including the Bill of Lading (BOL).

06 INSURANCE REQUIREMENTS

No less than $2 million liability insurance is required and Call2Recycle needs to be named on the Certificate of Insurance. Blanket insurance is acceptable if the community sites and landfill / transfer station fall under the same operating corporation.

CONTACT INFORMATION

Call2Recycle

TELEPHONE: 1-888-224-9764
EMAIL: CUSTOMERSERVICE@CALL2RECYCLE.CA
WEBSITE: CALL2RECYCLE.CA/

C

ELECTRONIC WASTE

Properly-handled electronic waste can and should be recycled. This means valuable resources can be re-used and not left to waste in the landfill. Removing electronic waste from your landfill helps protect the environment and community health from dangerous materials contained in the e-waste.

The **Electronics Products Recycling Association (EPRA)** is Manitoba's industry steward for electronic waste. They provide instructions on how to collect, store and transport electronic waste safely.

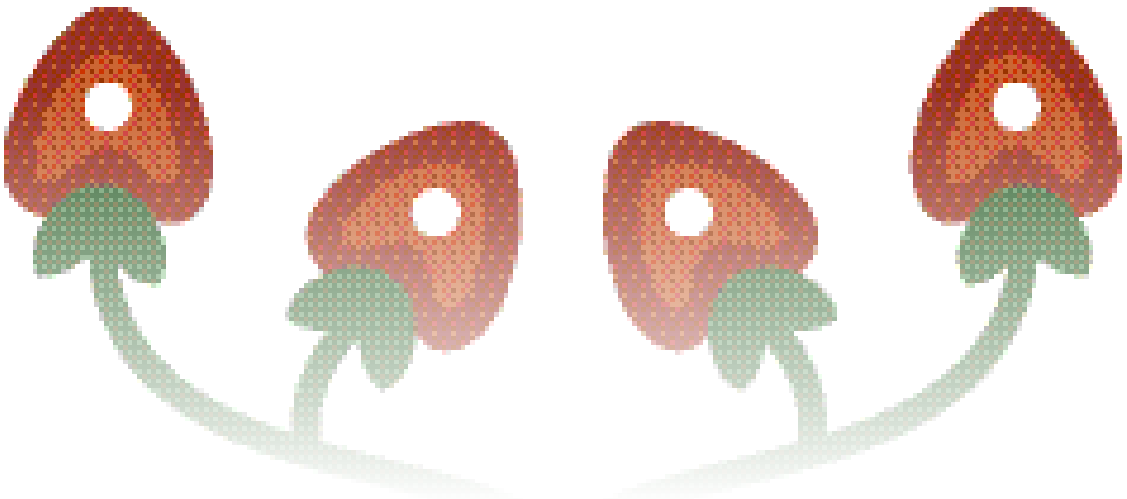
General categories of materials accepted include:

- Desktop computers
- Portable computers
- Computer peripherals (such as keyboards, mouse, cables, etc.)
- Desktop printers
- Personal or portable audio/video systems
- Vehicle audio/video systems
- Home theatre in-a-box systems
- Non-cellular telephones
- Countertop microwave ovens
- Floor standing multi-function devices (such as printers/copiers)

A full list can be found on the EPRA website:

RECYCLEMYELECTRONICS.CA/MB/WHAT-CAN-I-RECYCLE/

Information based on: Landfill/Transfer Station Design Requirements for Stewardship Materials, The Backhaul Project (May 2019). Updated June 2022.



01 REGISTRATION

There are two standard options for electronic waste. If your community generates enough e-waste to warrant a year-round collection depot, you will want to register with EPRA Manitoba to receive a rebate for the electronic waste shipped out. The second option is to hold a collection event in the community once or twice a year, in which case no rebate is provided by EPRA but you are able to remove the e-waste from your community and keep it out of the landfill.

OPTION 1 COLLECTION DEPOT

Contact the EPRA office and they will provide a standard collection site document.

There is no charge to become a depot and EPRA will pay for the materials collected based on weight as long as collection standards are met, which will be confirmed by an on-site visit

OPTION 2 COLLECTION EVENT

EPRA will pick up electronic waste from any location that has a minimum of 5 pallets. Pallets must be stacked with electronics to a height of 3-4 feet tall and the community must have equipment to load pallets onto a transport trailer.

EPRA will not provide a rebate for the tonnage collected but will cover the costs of transporting the electronic waste out of your community.

02 COLLECTION & TRAINING

Electronic waste and associated products are not appropriate for “curbside” pick up at residences and, as a best management practice, community members should deliver them to a collection site.

Program specific training is provided by EPRA Manitoba. This training includes basic instruction on stacking e-waste products during storage and requirements for securing a load properly for shipment.

03 STORAGE & EQUIPMENT

Storage must be weatherproof and secure from unauthorized access. Heated storage is not required.

Electronics should be stacked on pallets and shrink-wrapped to ensure stability during storage and transport. A standard pallet is 48”x 40”. A properly stacked pallet should be approximately 60” high. For communities with all-weather road access the storage footprint may be less than one-year storage.

To maximize transportation efficiency, a full 53-foot semi-trailer load is preferred. This equals 20-24 pallets or a storage footprint of approximately 450 square feet.

Required equipment at your landfill includes:

- Pallets to stack the e-waste on (either wood or plastic pallets will work). Pallets must be in good shape and be able to support loads up to 230 kg. A standard pallet is 48” x 40”.
- Pallet jack, forklift or skid steer to move and load pallets onto truck (provided by site operator)
- Shrink wrap for wrapping electronic waste materials. Shrink wrap can be purchased from any shipping supply company, such as Shippers Supply Inc or Staples.

04 TRANSPORT & REMOVAL

Material must be shipped in accordance with EPRA requirements that ensure load security. A standard shipping document (supplied by transporter) is required.

05 RECORD KEEPING

EPRA does not require records documenting amounts of e-waste diverted. However, site operators should retain the shipping document for the load of e-waste removed from the community to reconcile with program compensation payments.

06 INSURANCE REQUIREMENTS

All EPRA Collection Sites will possess:

- Valid permits, approvals and other business licenses as required to operate in the jurisdiction; and
- Comprehensive or Commercial General Liability Insurance including coverage for bodily injury, property damage, complete operations and contractual liability with combined single limits of not less than $1 million per occurrence, $1 million general liability.

EPRA does not need to be named as on the Certificate of Insurance for General Liability coverage, which can include multiple sites.

CONTACT INFO

Electronic Products Recycling Association (EPRA) Manitoba

TELEPHONE: (204) 415-5947
TOLL FREE: 1-888-567-4535
EMAIL: INFO@RECYCLEMYELECTRONICS.CA
WEBSITE: RECYCLEMYELECTRONICS.CA/MB

E-WASTE COMMUNITY EXAMPLE

PEGUIS FIRST NATION

In August 2023, Pathfinders traveled out to Peguis First Nation to help package and stage e-waste that had been collected over the span of a few years. The e-waste was loaded onto pallets which were wrapped and moved by skid steer for pickup.

In Fall 2023, 23 pallets were picked up by EPRA (Electronic Products Recycling Association) and sent to Exner E-waste to be properly recycled. Peguis has been a registered collection depot with the Electronic Products Recycling Association since the Spring of 2018.

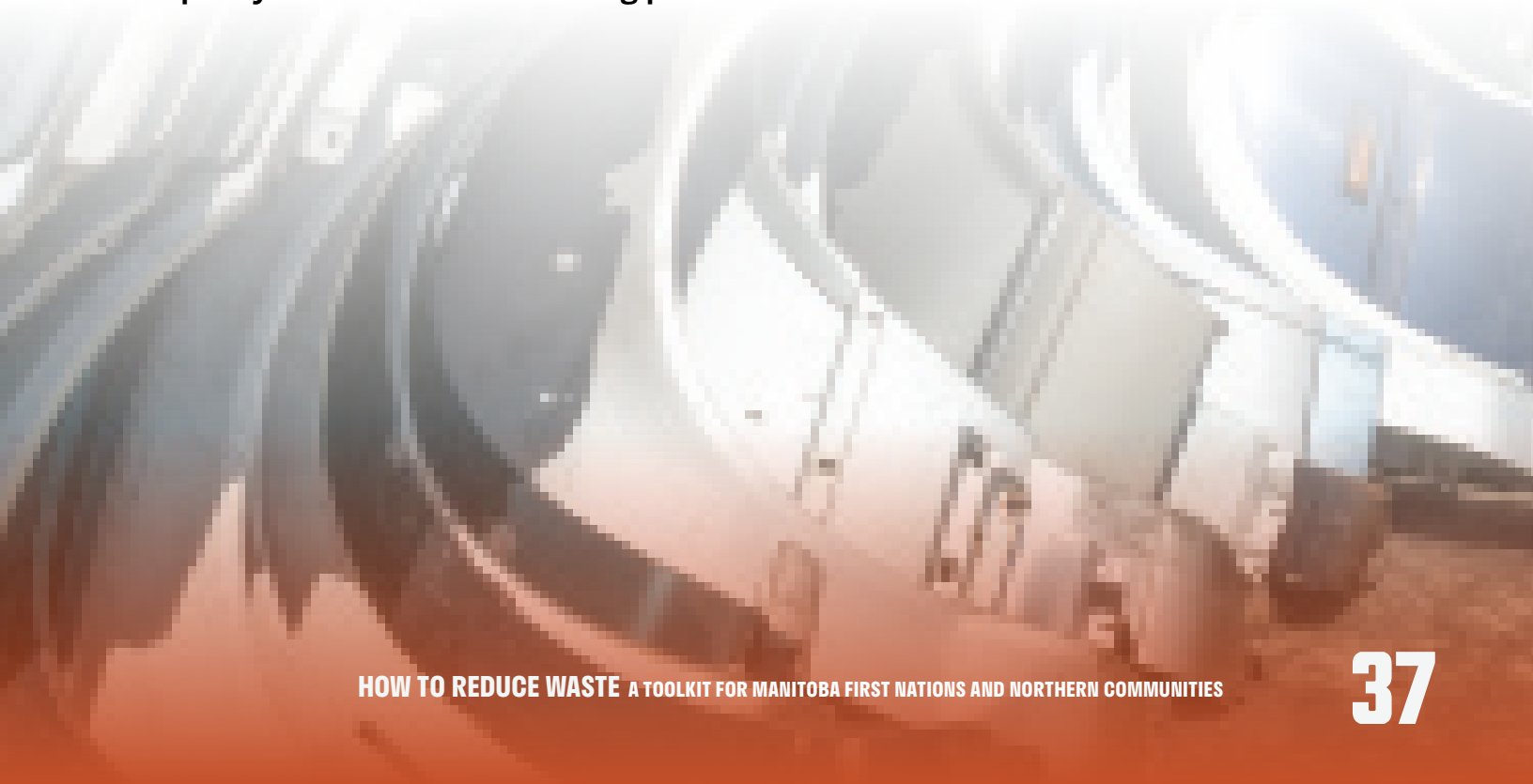
END-OF-LIFE (SCRAP) VEHICLES

For a variety of logistical, financial and social reasons, End-of-Life Vehicles (ELVs) accumulate in remote communities. The ELVs often have a negative value because the cost to process, crush and transport the ELVs to a steel recycler exceeds the value of the parts and commodities.

Developing a system to decommission and recycle ELVs is a complex process. It involves getting federal and provincial approvals, organizing collection of old vehicles around the community, removing and managing a number of hazardous wastes, developing agreements with Producer Responsibility Organizations (PROs), and coordinating logistics to transport the decommissioned ELVs. Although challenging, the process can be very rewarding, create jobs in your community, and protect the land, water and human health.

The Automotive Recyclers of Canada (ARC) has produced a resource, Recycling End-of-Life Vehicles in Canadian Remote Communities, to help you get started. You can also contact board members from the Automotive Recyclers of Manitoba (ARM) to arrange a visit to one of their ELV recycling facilities.

In addition, Tundra Take Back has produced some helpful resources to help you plan your ELV decommissioning process.



01 REGISTRATION

There is no registration specific to end-of-life vehicles (ELVs), however, some of the waste materials (used oil and antifreeze, scrap tires, lead acid batteries) removed from the vehicles require registration with industry stewardship organizations to receive financial and transportation support through the programs. It is also necessary to have an environmental review done through Indigenous Services Canada (ISC) and to register as a hazardous waste generator with the Manitoba Government (Conservation and Climate Approvals Branch).

In addition, there are a number of different federal and provincial regulations to be aware of when beginning the ELV recycling process outlined below.

Federal acts pertaining to the ELV recycling process for First Nations in Manitoba include the:

- Canadian Environmental Protection Act (CEPA)
- Transportation of Dangerous Goods Act (TDG)
- Fisheries Act
- Indian Act

Under CEPA, relevant regulations include: federal halocarbon regulations, and the ozone-depleting substances regulations. Most of the regulations in CEPA, the TDG Act, and the Fisheries Act describe which chemicals are environmentally hazardous, how to responsibly dispose of and transport these substances, and where to locate an ELV recycling operation. The applicable section of the Indian Act is the Indian Reserve Waste Disposal Regulation.

Provincial acts applicable to ELV recycling in Manitoba include the:

- Environment Act
- WRAP (Waste Reduction and Prevention) Act
- Workplace Safety and Health Act
- Ozone Depleting Substances Act
- Dangerous Goods Handling and Transportation Act

These Acts regulate how to transport and dispose of environmentally hazardous substances as well as how to keep workers safe during the recycling process. Although provincial acts are not always directly applicable to First Nations, they provide best practices to work from.

PLANNING

There are 3 main options to process End-of-Life Vehicles (ELVs) depending on your community infrastructure, the distance to an ELV processor, and the number of ELVs in your community.

OPTION 1

Transport non-decommissioned and uncrushed scrap vehicles to the nearest ELV recycler using a flat deck trailer.

OPTION 2

Pay for a trained ELV recycling technician to come to your community and decommission the ELVs then contract a company with a mobile crusher to come to your community and crush the vehicle hulks for transport out of the community.

OPTION 3

Take training and acquire the equipment needed to decommission and crush the vehicles using labour from your community.

In each of these approaches there are 3 general phases:

1. Do an inventory so you know how many ELVs there are in your community, then establish a marshalling (collection) area and start towing the ELVs to the marshalling area.
2. Determine the best solution to process and remove the ELVs from your community as listed above.
3. Create a process to continuously move the ELVs to the marshalling area where they can be managed and processed. This will prevent a backlog of ELVs in the community, ensure that hazardous materials don't leak into the land, air, and water, and limit the number of scrap vehicles that become damaged, burnt or vandalized.

Although many considerations and processes are the same for all communities, there will be differences because:

- Infrastructure and expertise will vary between communities
- Processing areas may be temporary or long-term
- Storage and transportation options for hazardous materials will differ

Decommissioning involves removing the following wastes from the scrap vehicle before crushing it:

- Engine oil
- Antifreeze
- Stale gas or diesel
- Mercury switches
- Lead wheel weights
- Refrigerant
- Lead battery
- Windshield washer fluid
- Tires

03 TRAINING

There is no single comprehensive training program in managing End-of-Life Vehicles (ELVs). Below is a list of training connected to ELV recycling and a brief description of the training. It is beneficial to schedule the training as soon as possible.

DECOMMISSIONING

The Government of Nunavut's "End-of-Life Vehicle Hazardous Materials Recovery Program Manual" provides northern communities with a guide for the proper removal, storage and handling of potential hazardous materials from ELVs. More information here:

HTTP://WWW.GOV.NU.CA/SITES/DEFAULT/FILES/FINAL_-_ELV_PROGRAM_MANUAL_-_JAN_10_2011_0%20%281%29.PDF

It is also possible to contact the Automotive Recyclers of Manitoba to arrange a day or two of training to have them walk you through the decommission process in one of their ELV recycling facilities. More information here:

HTTPS://ARM.MB.CA/ABOUT-ARM/

REFRIGERANT REMOVAL CERTIFICATION

The Manitoba Ozone Protection Industry Association offers training in refrigerant removal. You can register for training here: https://mopia.ca/training/. If you have a group of staff that is interested in this training MOPIA is open to doing training in your community. To ask about in community training you can find contact information for MOPIA here:

MOPIA.CA/CONTACT/

TRANSPORTATION OF DANGEROUS GOODS (TDG)

TDG training is needed to know how to ship hazardous materials safely and according to regulation.Safety Services Manitoba (SAFETYSERVICESMANITOBA.CA/OCCUPATIONAL-SAFETY-HOME/) offers TDG training in Winnipeg or online:

SAFETYSERVICESMANITOBA.CA/OCCUPATIONAL-SAFETY-HOME/OCCUPATIONAL-SAFETY-TRAINING/ONLINE-SAFETY-TRAINING/

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS teaches how to identify hazardous products, control hazards from these products, and safely handle controlled products. Safety Services Manitoba (SAFETYSERVICESMANITOBA.CA/OCCUPATIONAL-SAFETY-HOME/) offers WHMIS training in Winnipeg or online:

SAFETYSERVICESMANITOBA.CA/OCCUPATIONAL-SAFETY-HOME/OCCUPATIONAL-SAFETY-TRAINING/ONLINE-SAFETY-TRAINING/

FIRST AID

First Aid training will help you know how to respond if someone gets injured on the job site. There are a number of options for First Aid training. Here are a few suggestions to check out:

- You may be able to organize First Aid training through the health centre/ nursing station in your community
- First Aid Training Centre
- Safety Services Manitoba

Safety Services Manitoba has partnered with University College of the North to deliver training in Northern Manitoba. Contact Safety Services Manitoba to find out more. They also offer a number of other workplace health and safety courses such as spill response training, fall protection, and hazard recognition, evaluation, and control. Some can be taken online or remotely.

Safety Services Manitoba contact info:

SAFETYSERVICESMANITOBA.CA/ABOUT-US-HOME/CONTACT-US/CONNECT-WITH-US/

Health and Safety courses:

SAFETYSERVICESMANITOBA.CA/OCCUPATIONAL-SAFETY-HOME/HEALTH-SAFETY-COURSES/

Online courses:

SAFETYSERVICESMANITOBA.CA/OCCUPATIONAL-SAFETY-HOME/OCCUPATIONAL-SAFETY-TRAINING/ONLINE-SAFETY-TRAINING/

Live remote training:

SAFETYSERVICESMANITOBA.CA/OCCUPATIONAL-SAFETY-HOME/OCCUPATIONAL-SAFETY-TRAINING/LIVE-REMOTE-TRAINING/

LEAD BATTERIES, TIRES, USED OIL/ANTIFREEZE

These materials are all part of provincial Producer Responsibility Organizations (PROs) often referred to as "stewarded materials". Each PRO has resources on how to handle their designated material, and different procedures for registration, collection, storage and reporting. To learn more, visit the pages for **tires, lead batteries** and **used oil/antifreeze.**

ADVANCED TRAINING

Once you have an established marshalling, decommissioning and shipping process for ELVs and the hazardous wastes they contain, your community might be interested in further developing the business aspect of your ELV recycling facility. This will allow you to reuse parts from scrap vehicles, perform vehicle maintenance, and generally help to manage the business.

The following training might interest your team:

1. **Mechanics**
    a. University College of the North: Automotive Technician, Heavy Duty Mechanic
    b. Manitoba Institute of Trades and Technology: Automotive Service Technician
    c. Red River College: Automotive Technician
    d. Assiniboine Community College: Automotive Technician, Automotive Service Technician - Apprenticeship, Heavy Duty Equipment Technician
2. **Administration/Business Management:**
    a. Yellowquill College: Business Certificate, First Nation Management and Administration
    b. Neeginan College: Social Innovation and Community Development Program
    c. University College of the North: Business Administration, Office Assistant

04 PROCESS AREAS

1. MARSHALLING AREA

The choice of the marshalling area will bring a variety of challenges and opportunities. The benefits of the local landfill or transfer station are that all of the End-of-Life Vehicles (ELVs), other metal products and other stewarded waste materials will be in a central location. The challenges are that the landfill or transfer station is typically out of town, may not have power or security, and is frequented by bears.

Because each remote community will be unique, the community needs to consider the best location for the marshalling of ELVs and utilize reliable local infrastructure and expertise where possible. Ideally, the Marshalling Area will be close to the areas where ELVs will be processed, crushed and hazardous materials will be stored.

2. PROCESSING AREA

The processing area of a Canadian Automotive Recycler Environmental Code (CAREC) certified automotive recycler has a:

- Covered roof to shed the rain and snow from the work area with a concrete pad to contain any spilled fluids
- Power and lights
- Safe and sturdy rack to place the ELV during processing
- Drums and tools to drain hazardous liquids such as engine oil, antifreeze and stale gas
- Equipment (A/C machine, gas tank spike, generator, loader)

In most remote communities, much of this basic infrastructure will not be present. As such, the processing area in a remote community must have the following features at a minimum:

- The area must be level and draining of fluids cannot proceed in the rain if the process area is not covered.
- Substrate must be at least semi-permeable to allow clean-up of spilled fluids. Clay or compacted snow could provide a temporary barrier that can be cleaned up at the completion of the processing. A plywood floor with absorbent pads could also provide a suitable barrier over sand or crushed rock.
- The area must be at least 30 metres away from a stream or wetland and runoff from the process area must be able to be contained in the event of a large spill.

3. CRUSHING AREA

Once the ELVs have been processed and the hazardous materials have been removed, the ELVs are ready for crushing or bailing before transportation.

Because not all the fluids have been removed from some of the parts (e.g. differential fluid), the crusher must have the ability to collect any fluids that may be liberated from the ELV during crushing. Normally, differentials and transmissions will not break during a crush, but if they do, the fluids must be collected. Normally, a crush of 100 well processed ELVs will generate about 20 litres of fluids during crushing.

4. HAZARDOUS MATERIALS STORAGE

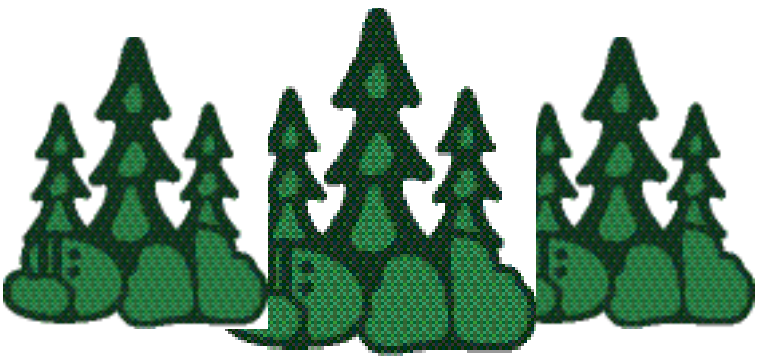
All hazardous fluids must be stored with secondary containment in a secure location (including protection from bears) and the containers must be clearly labelled.

You can learn more about storage and handling for tires, lead batteries and used oil/antifreeze on the pages specific to these materials.

DECOMMISSIONING & HAZARDOUS MATERIALS MANAGEMENT

End-of-Life Vehicles (ELVs) that have been in the remote community for some time may have had parts removed, be physically damaged, or burned. The processing of these damaged ELVs is more difficult and potentially unsafe, however best efforts should be made to safely remove the remaining hazardous materials prior to crushing, as follows:

- The three primary fluids to be drained before crushing include engine oil, antifreeze and stale gas. Other fluids in transmissions and differentials are not practical to drain before crushing.
- Windshield washer fluid can be easily removed with suction and reuse.
- Tires must be removed before crushing but because there will likely not be a tire machine on site, the tires can be left on the rims.
- Mercury switches are easily removed by a trained crew.
- Refrigerants must be removed using a portable A/C machine by a licensed technician in accordance with the CAREC standards.



ENGINE OIL

- Ideally, engine oil will be stored separately from other lubricants so that the oil can be burned in a used oil furnace in the community. This will provide a fuel for a community building in the winter plus reduce the cost of removal of used oil from the community.
- If the engine oil is going to be used as a fuel, the oil must be stored separately and not be contaminated with stale gas or other lubricants.
- Storage requirements for engine oil: must be in secondary containment, in a secure location (away from wildlife or vandalism) and properly labelled.
- Used engine oil to be used as a fuel is not subject to the Transportation of Dangerous Goods Act; however, transportation will be subject to Provincial Hazardous Waste Regulations.
- Barrels of used engine oil should not be transported in quantities more than 220L at a time.

ANTIFREEZE

- Radiators must be drained prior to crushing.
- Storage requirements for antifreeze: must be put in separate barrel with secondary containment, in a secure location and properly labeled.
- Some antifreeze will remain in the block of the engine and may be partially recovered during crushing.

STALE GAS

- Stale gas that cannot be reused on site must be drained by puncturing the gas tank with a spike.
- Stale gas must be stored in a separate labelled container that has secondary containment.

FLUIDS FROM CRUSHER / BAILER

- Crushing or bailing an ELVs will generate additional fluids and water – about 20L per 100 ELVs.
- Modern machines will collect the runoff in separate containers or holding tanks.
- Crusher / Bailer fluids must be captured in a labelled container with secondary containment.

LEAD BATTERIES

- Lead batteries must be removed and placed in a secure location that is protected from extreme freezing temperatures.
- Used and fully discharged lead batteries will have weak acid that can freeze and cause the battery casing to crack and the acid will leak during the next thaw.
- Batteries must be transported as a hazardous waste and dangerous good.

WINDSHIELD WASHER FLUID

- Can be pumped out and reused by the community.

MERCURY SWITCHES

- ABS and hood mercury switches are easily removed during processing assuming the ELVs are not badly damaged.
- Mercury switches are in different locations on different vehicles, and can be found on all vehicles manufactured before 1995 and on all North American vehicles manufactured up to 2003.
- Switches should be removed and placed in a separate container. Ask the metal recycler you send your ELV hulks to if they will accept the removed switches.

REFRIGERANTS

If found in ELVs, it is important to remove the refrigerant. The following details apply for the removal of refrigerants:

- A licensed technician is needed to do refrigerant removal.
- A portable or on-site refrigerant removal machine will be needed.
- ELVs with refrigerants should be logged along with the amount removed.
- Containers for refrigerants must meet Federal and Provincial requirements and containers should be tracked using movement documents to show destruction of refrigerants.

TIRES

- Tires must be removed from the ELV before crushing.
- Tires can be left on rim for transportation to tire recycling.
- Tires should not be cut off of rims.

You can learn more about storage and handling for tires, lead batteries and used oil/antifreeze on our pages specific to these materials.

06 WORKER SAFETY AND SPILL RESPONSE

There are many environmental and safety hazards when processing and recycling ELVs. These hazards are exacerbated in remote communities plus the response to worker injury can be more lengthy.

SAFETY

Worker safety is the first priority. Wildlife, handling damaged ELVs and uneven terrain with limited infrastructure are concerns when working in a remote community. Have regular safety meetings to encourage safe work and make sure staff are feeling safe when doing tasks.

CONTAMINATION

Small leaks and spills will occur during processing and crushing of ELVs – this is inevitable even in ideal conditions. Systems need to be in place for an adequate response to these small leaks and spills and ongoing cleanup of contaminated soil or snow after processing and crushing.

SPILL RESPONSE

The biggest concern is a significant spill of hazardous fluids or a tire fire during storage or transportation. The processing crew needs to have training in emergency response plus have significant materials for spill response.

Important preparations for processing ELVs include:

- Safety plan that summarizes the potential worker hazards at the site and available medical response in the community.
- Spill Response plan that summarizes the quantity of hazardous fluids expected on site, a site map of the processing and crushing area with proximity of streams and wetlands and required quantities of spill response equipment and materials.

07 TRANSPORT & REMOVAL

When recycling End-of-Life Vehicles (ELVs), you will have to plan for transportation of hazardous materials out of your community as well as the vehicle hulks. There are Producer Responsibility Organizations (industry stewardship recycling groups) that will work with you to arrange and pay for transportation for scrap tires, lead batteries, and used oil/antifreeze. Removing the other materials (stale gas, mercury switches, refrigerants, and vehicle hulks) will have to be done at your own expense.

As long as you follow requirements in the federal Transportation of Dangerous Goods Act and Manitoba's Dangerous Goods Handling and Transportation Act and use a licensed transporter, you can determine the specifics of transport according to what works best for your community. There are a number of scrap metal processors in Manitoba that will transport vehicle hulks, including Gerdau.

Generally, backhaul is the most cost-effective way to transport decommissioned and crushed ELVs, and the hazardous materials out of the community. Backhaul is shipping freight on a return journey by ship, air, train, or truck.

Zender Environmental Group out of Alaska has a number of resources related to backhauling:

ZENDERGROUP.ORG/BACKHAUL.HTML

They offer the following steps to take for setting up backhaul:

- Figure out your inventory.
- Prepare the backhaul material for safe storage while you work on the rest of the steps. (Especially if you have any unsafe materials.)
- Contact your vendor (the company you are sending your materials to).
- Contact your transporter to work out a schedule for them to pick up the material and take it to your vendor.
- Contact the vendor to let them know when the material will arrive.
- Package and stage the material, if you haven't already. Ensure it is labeled properly.

Find more details here:

ZENDERGROUP.ORG/DOCS/BACKHAUL_STEPS.PDF

08 POST CRUSHING CLEAN UP

Crushing End-of-Life Vehicles (ELVs) will generate broken glass, plastic and other debris as part of the crushing process. Provisions must be made for the clean up of the crusher location after all (or a season) of the ELVs have been crushed and transported. The material cleaned up from the crusher site will be benign and can be disposed of in the landfill. Soil and snow that becomes contaminated can also be disposed of as top cover in the landfill assuming that the oil content is less than 3%.

Following the completion of each clean up, it is recommended to have an environmental professional inspect the site to ensure that the ELVs were processed thoroughly, and give feedback to the crew that conducted the processing and crushing of the scrap vehicles. Ideally, once a community has had its backlog of ELVs removed, new ELVs will be moved to a central processing area to prevent another buildup of scrap vehicles.

08 RECORD KEEPING

The ELV recycling crew should track the following and keep records on site to show how much you have accomplished and in case you need the information for environmental reporting:

- Number of ELVs processed and crushed
- Vehicle Identification Numbers (VINs)
- Quantities of hazardous materials recovered:
  - Engine oil
  - Other lubricants
  - Antifreeze
  - Lead batteries
  - Mercury Switches
  - Refrigerants
  - Tires
- Fate of hazardous materials
- Post crush clean up and inspection report

RECOMMENDED RESOURCES

Here are some recommended resources if you want more information on End-of-Life Vehicle recycling:

- Automotive Recyclers of Canada (ARC): AUTORECYCLERS.CA/
- Automotive Recyclers of Manitoba (ARM): ARM.MB.CA/
- Canadian Automotive Recyclers Environmental Code (CAREC): CAREC.CA/CAREC-EN-HOMEPAGE.HTM
- Recycling ELVs in Canadian Remote Communities guide: AUTORECYCLERS.CA/ABOUT-ARC/ISSUES
- The Government of Nunavut's "End-of-Life Vehicle Hazardous Materials Recovery Program Manual": GOV.NU.CA/SITES/DEFAULT/FILES/FINAL_-_ELV_PROGRAM_MANUAL_-_JAN_10_2011_0%20%281%29.PDF

HOUSEHOLD HAZARDOUS WASTE

Collecting and shipping household hazardous waste (HHW) out of your community is important. Pouring these toxic materials down the drain or putting them in with the regular garbage can cause harm to the land, air and water. For example, fluorescent light bulbs contain mercury which the World Health Organization considers one of the top 10 chemicals of major public health concern, and pressurized containers, such as propane or butane cylinders, can explode and cause serious injury or death.

Setting up a system to manage household hazardous waste in your community is a bit complex, but the **Product Care Association (PCA**) will help you through the steps to recycle and dispose of these items safely.

PCA supports collection and recycling of:

- Fluorescent lights (compact fluorescent lights or CFL's, and fluorescent tubes)
- Paints / paint products
- Flammable liquids (e.g. gasoline or paint thinner)
- Corrosives (e.g. rust remover)
- Pesticides (poisons)
- Toxics (e.g. furniture stripper)
- Physically hazardous materials (fuel cylinders)
- Environmentally hazardous products
- Paint aerosols or other aerosols that are not paint but are toxic, flammable or corrosive

You can find a more comprehensive list on the PCA website here:

PRODUCTCARE.ORG/PROVINCE/MANITOBA/

It is not necessary to start collecting all of the items listed above. PCA can work with you to set up collection of just fluorescent lights and/or single use compressed gas cylinders, leftover paint products, lights and cylinders to start.

Once you are approved, get set up as a collection site, and have collected materials according to the PCA guidelines, an approved processor will remove the waste from your community for free. PCA provides compensation in the agreement for approved materials collected and removed.

Information based on: Landfill/Transfer Station Design Requirements for Stewardship Materials, The Backhaul Project (May 2019). Updated June 2022.

01 REGISTRATION

Once your community decides it wants to collect household hazardous waste (HHW), you should contact Product Care and the environment department at Indigenous Services Canada to get assistance with the registration process. You will also need to register as a generator of hazardous waste with the province.

Before starting to collect any HHW, there are a number of important federal and provincial regulations to be sure you follow to keep yourself and the environment safe.

Collection sites for HHW must meet the Manitoba Regulation 195/2015 Hazardous Waste Regulation (WEB2.GOV.MB.CA/LAWS/REGS/CURRENT/_PDF-REGS.PHP?REG=195/2015), the Dangerous Goods Handling and Transportation Act (DGHTA) Licensing Requirements, and applicable Fire/Building Code requirements. Note that First Nation communities on treaty land under the Federal government are not required to get a DGHTA license, but do require a hazardous waste registration number.

02 COLLECTION & TRAINING

Household hazardous waste products are not acceptable for "curbside" residential collection as they are dangerous to health and the environment. As a best management practice, they should be delivered by individuals to a collection site.

Offering a drop-off day at a central location in the community can work well for collecting HHW. Holding drop-off days on a regular basis, such as once a month, can help community members become accustomed to it, rather than having to wait for a special day.

Program specific training in the form of guidelines, online demonstration for safe packing, or hands-on for full collection sites is provided by PCA. The training includes instruction on collecting, identifying, sorting, safe management of HHW during storage, and preparation for shipment.

Transportation of Dangerous Goods training is required as the community is the consignor (shipper) of the HHW. This training is required to ensure the HHW is properly packed, identified, and prepared for shipment according to TDG Act requirements.

03 STORAGE & EQUIPMENT

Household Hazardous Waste (HHW) must be stored according to Dangerous Goods Handling and Transportation Act (DGHTA) licensing requirements. Heated storage is not required. Building options include constructed buildings, sea containers and semi-trailer units. A minimum of 400 square feet of indoor storage is needed to collect all of the products accepted by PCA and store some supplies.

HHW is stored in 205 litre steel or plastic drums, 4 x 4 x 3 "tubskids" and fluorescent light boxes. PCA supplies the storage containers to ensure they meet MR195/2015 and Transportation of Dangerous Goods Act requirements.

To accept any HHW, it must always be in its original container, identifiable and never mixed or bulked. The original containers are specially packed in a drum or tubskid by a trained operator. Containers under 10L are packed in a drum of vermiculite to ensure safe storage and transport of the HHW.

Regulation requires signage clearly stating hazardous waste is being stored. Items not in the original containers or with original labels that are not intact and readable cannot be accepted.

Drums can be stored on pallets that are in good shape and able to support heavy loads. Drums can also be stored on the floor if they are light enough to move or the site has a drum dolly.

Supplies provided by PCA for collection sites include:

- 205 litre steel drums (for flammable, toxic and
- Aerosol products)
- 205 litre plastic drums (for corrosive products)
- Plastic tubskids (for paint)
- Cardboard boxes (for fluorescent lights)
- A spill kit containing absorbent
- Vermiculite for lab packing HHW
- Portable single use eye wash system
- TDG labels for storage and transport

NOTE: It is critical to receive training from PCA to properly sort and store the original containers of household hazardous waste in drums or tubskids as combining the wrong materials can be deadly.

Equipment and supplies that the collection site operator needs to provide include:

- Pallet jack, forklift or skid steer to move and load pallets onto truck
- Drum dolly where pallets are not used
- Fire extinguisher
- Personal protective equipment (e.g. safety glasses, safety vest, chemical resistant gloves, steel-toed boots)

04 TRANSPORT & REMOVAL

When you are ready to transport hazardous waste from your community, it must be shipped according to the Dangerous Goods Handling and Transportation Act and the Transportation of Dangerous Goods Act requirements.

Communities must make arrangements for removal of HHW through the transporter approved by PCA. PCA will help you determine who to contact depending on which type of HHW you are shipping. The transportation costs will be covered by PCA.

PCA will provide you with forms to fill out when you need products picked up or storage supplies delivered.

05 RECORD KEEPING

1. The operator must inspect the storage area every 30 days and keep inspection records for a minimum of 2 years. (MR 195/2015) PCA provides a form you can use.
2. When hazardous waste is shipped from a community a movement document/ manifest must accompany each load. The waste generator is responsible for ensuring the manifest is present during transport. Manifest records must be kept for 2 years. (TDG)
3. The site is responsible to report collected volumes of paint material to Manitoba Environment, Climate and Parks annually. Details on what is required is covered during PCA's training for site operators.

Here is an excellent summary of Transport Canada's requirements for Transportation of Dangerous Goods (TDG) with shipping documents you can print if needed:

TC.CANADA.CA/SITES/DEFAULT/FILES/2020-07/TDG_BULLETIN_-_SHIPPING_DOCUMENT_-_PDF_EN.PDF

Your community is considered the consignor (shipper) so when you fill out and/or sign a shipping manifest you are certifying the dangerous goods have been properly classified, packaged and labelled with safety marks according to the TDG Regulations.

Collection site guidelines and the PCA forms mentioned above can be found on their website here:

PRODUCTCARE.ORG/SERVICE-PARTNERS/RESOURCES/?PROVINCE=MB&TYPE=&PRODUCT=

06 INSURANCE REQUIREMENTS

As per the Product Care agreement (page 10):

7.5 Collector shall obtain and maintain throughout the term, at its own expense, adequate insurance for its obligations and the services to be performed at the Collection Sites under this Agreement, including the insurance coverage set out below:

d. comprehensive general liability coverage of a minimum of $1,000,000; and

e. any other normal insurances sufficient for its business as a Product Care authorized collection facility and to carry out its obligations under this Agreement, (collectively, the "Insurance").

7.6 The Collector shall include Product Care as an additional insured in the Insurance.

7.7 Collector shall supply Product Care with a certificate of insurance evidencing Product Care as additional insured on an annual basis.

CONTACT INFORMATION

Product Care Association

TOLL FREE: 1-877-592-2972
EMAIL: MANITOBA@PRODUCTCARE.ORG
WEBSITE: PRODUCTCARE.ORG/PROVINCE/MANITOBA/

HOUSEHOLD HAZARDOUS WASTE COMMUNITY EXAMPLE

BUFFALO POINT FIRST NATION

Even before the FNWM team worked with Buffalo Point First Nation there was community interest in diverting Household Hazardous Waste (HHW) in the form of paint, fluorescent lights and aerosols. Thanks to the commitment of the waste team in Buffalo Point they have begun collecting more products which fall under the HHW umbrella.

In 2022, Product Care picked up 4 tubskids of paint from Buffalo Point First Nation, and in 2023 the waste management team had collected another 2 tubskids of paint, as well as a half drum of single use propane canisters and another half "drum of aerosols.

LEAD BATTERIES

Lead batteries pose a great danger to the land, water and human safety. The Canadian Battery Association has guidelines that ensures that lead batteries are properly collected, stored, handled and transported which protect the environment and minimize risk to workers.

The **Canadian Battery Association (CBA)** supports the collection of batteries from:

- Automobiles
- Snowmobiles
- All Terrain Vehicles (ATVs)
- Boats
- All motive and energy storage lead batteries
- Batteries with "Lead" or "PB" written or stamped on the casting

The Manitoba Household Hazardous Material and Prescribed Material Stewardship Regulation (CANADIANBATTERYASSOCIATION.CA/FILES/HHMPMSR.PDF) defines the products collected through the program.

For information on recycling consumer single-use and rechargeable batteries less than 5kg, see the other pages on consumer (household) batteries.

Information based on: Landfill/Transfer Station Design Requirements for Stewardship Materials, The Backhaul Project (May 2019). Updated June 2022.

01 REGISTRATION

To begin collecting and storing lead batteries you will need to contact the Canadian Battery Association (CBA) directly at: INFO@CANADIANBATTERYASSOCIATION.CA

In addition, it is necessary to fill out an "Environmental Review Project Form" with an Environment Officer at Indigenous Services Canada (ISC) and register as a generator of hazardous waste with Manitoba to obtain a Manitoba Generator Registration Number. The CBA can help communities with these requirements.

There are important federal and provincial regulations to be followed before collecting or storing lead batteries in order to minimize risk for yourself and the environment.

Storing facilities should meet the licensing requirements as well as the applicable Fire/ Building Code requirements found in the Manitoba Regulation Hazardous Waste Regulation and the Dangerous Goods Handling and Transportation Act (WEB2.GOV.MB.CA/LAWS/STATUTES/CCSM/D012E.PHP).

Lead batteries are considered Dangerous Goods under the Federal Transportation of Dangerous Goods Regulation and Hazardous Waste under Manitoba's Dangerous Goods Handling and Transportation Act (DGHTA). The CBA can help communities comply with these requirements.

02 COLLECTION & TRAINING

Lead batteries are not appropriate for residential collection and should be delivered to a storage site by the owner of the battery.

Individuals normally generate 5 kg per year per person for lead batteries. For communities with winter road access only, assume one-year storage and a storage footprint of approximately 120 square feet or seven pallets per 1,000 population. Communities with all weather road access require less than one-year storage and should assume a storage footprint of approximately 30 square feet or two pallets per 1,000 population.

Program specific training is provided by the Canadian Battery Association (CBA) and includes basic instruction on preparing batteries for storage and shipment as well as Workplace Hazardous Materials Information System (WHMIS 2015).

Operators are required by regulation to be trained in the Transportation of Dangerous Goods (TDG) including classification, documentation, containment and storage, safety marks, and spills and reporting. There is free web-based training for TDG requirements for collection site operators available from the CBA. Contact them by email at: info@canadianbatteryassociation.ca

Spill response training for acid in lead batteries is integrated into the Safety First Program.

03 STORAGE & EQUIPMENT

It is important to remember that lead batteries contain an acidic liquid that can freeze, causing battery casings to split and acid to spill. Battery acid may contain dissolved lead which when exposed to humans can cause a threat to safety and poses a threat to the environment.

In order to prevent freezing, semi-heated storage is required or seasonal storage from approximately April to October.

The following requirements should be considered when designing storage areas:

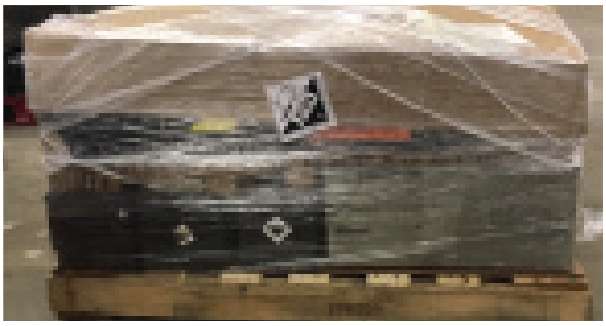
- An average automotive battery is 20kg and a heavy-duty truck battery is 35kg.
- Batteries must be stacked on a pallet or in a battery box (see photos on the next page). A battery box has a maximum capacity of 450 litres. A standard pallet is 48" x 40".
- Cardboard must be placed between stacked battery layers as terminal protection. Cardboard should be minimum 5/8 inch.
- Batteries stacked on pallets must be shrink-wrapped and strapped to prevent shifting during shipment.
- Each layer will weigh approximately 400kg or 20 automobile batteries.

BATTERY BOX STACKED BATTERIES ON PALLET

Regulations and best practice require that the storage area include signs clearly indicating lead batteries are being stored at the location.

Stored pallets of batteries require labels indicating Class 8 corrosive material. Labels are placed on all four sides of the pallet and on the top (see photos on the next page). Labels are not the same as the placards that are required on the vehicle used to transport lead batteries.

Battery box



Stacked batteries on pallet

Labels on all sides and top of shrink-wrapped pallet

04 TRANSPORT & REMOVAL

SAFETY LABELS ON TWO SIDES OF A SHRINK-WRAPPED PALLET

Acid-containing material must be segregated from incompatible material (anything that will react with acid). Segregation may include secondary containment for stored batteries or a separated storage location such that any leaked or spilled battery acid cannot come into contact with incompatible material. Examples of incompatible material include alkaline material such as ammonia and oxidizing material such as bleach.

Specific equipment and supplies are required to collect and store lead batteries. Unless otherwise noted, these are the responsibility of the community.

Supplies include:

- Pallets suitable for heavy weight – typical pallet is 48” x 40”.
- Cardboard to use as a layer between stacked batteries as terminal protection – 5/8” of cardboard.
- Flattened cardboard boxes are acceptable but may need to be double-layered to ensure good terminal protection.
- Shrink wrap, available at shipper supply outlets for wrapping stacked batteries for shipment.
- Pallet jack, fork lift or skid steer to move and load pallets onto a truck.
- Class 8 Transportation of Dangerous Goods (TDG) labels and placards will be provided to communities registered with the Canadian Battery Association.
- Commercially available, off-the-shelf, spill kits containing neutralizing material and absorbent.

- Personal protective equipment including acid resistant gloves and safety glasses available at safety supply outlets.
- Eyewash station available at safety supply outlets.
- Tools to assist with spill clean-up such as a shovel, broom and dust pan available at building supply outlets.

Signs are required by regulation indicating that hazardous waste is being stored. Storage site operators should consider signs advertising that lead batteries are collected at that location.

Best practices based on DGHTA regulations requires that a spill kit be kept in an easy-to-get-to-location at the storage site. The spill kit should contain acid neutralizing material, absorbent material and tools to clean up and contain an acid spill. "Off-the-shelf" spill kits are available at safety supply companies.

Lead batteries must be shipped using the Canadian Battery Association's TDG (Transportation of Dangerous Goods) Equivalency Certificate using one or more of the three methods listed below:

- Batteries are stacked on a pallet in two layers using ⅝ inch cardboard to separate each layer and the pallet must be shrink wrapped for transport.
- Batteries can be transported in a battery box that is less than 450L.
- Batteries are transported in a "bottle truck" or truck with bracing to secure the load.

Communities with all-weather road access can make arrangements with licensed commercial battery recyclers for lead battery collection. The company will determine the appropriate transportation method and ensure the community is compliant. Contact the CBA for a list of commercial battery recyclers in Manitoba:

INFO@CANADIANBATTERYASSOCIATION.CA.

For communities with winter-road access only, lead batteries must be shipped with a transporter approved by the CBA using methods reviewed and approved by the CBA. The transporter must be licensed in accordance with the DGHTA and shipments must meet TDGA/TDGR requirements. (Above information current to May 29, 2019)

Here is an excellent summary **(TC.CANADA.CA/SITES/DEFAULT/FILES/2020-07/TDG_BULLETIN_-_SHIPPING_DOCUMENT_-_PDF_EN.PDF)** of Transport Canada's requirements for the Transportation of Dangerous Goods (TDG) with shipping documents you can print if needed.

Your community is considered the consignor (shipper) so when you fill out and/or sign a shipping manifest, you are certifying the dangerous goods have been properly classified, packaged and labelled with safety marks according to the TDG Regulations.

05 RECORD KEEPING

Best practice based on DGHTA hazardous waste facility licensing requires regular inspections of the lead battery storage area. Records must include the date of the inspection, the name of the person who conducted the inspection, observations made during the inspection, and any recommendations for remedial action and actions undertaken. Records are to be kept for a period of two years.

TDG regulations require a manifest or movement document accompanying each shipment of lead batteries from a community. Regulations require facility operators to keep manifest records for two years.

Record storage and retention are a regulatory requirement and industry best practice for most stewardship programs, as well as for waste transfer and waste disposal facilities. Record storage and retention capacity should be included in all facility design as part of the operator's shed or other area that is secure and protected from elements.

06 INSURANCE REQUIREMENTS

The Canadian Battery Association (CBA) needs to be named as an Additionally Insured on the Commercial and General Liability insurance. The CBA will ensure that the transporters of lead batteries have adequate insurance.

CONTACT INFORMATION

For more information on the **CANADIAN BATTERY ASSOCIATION'S PROGRAM** and to register, contact the CBA at:

INFO@CANADIANBATTERYASSOCIATION.CA

LEAD BATTERIES COMMUNITY EXAMPLE

WASAGAMACK FIRST NATION

Wasagamack and the FNWM team developed a load plan for the 2023/24 backhaul load plan which included lead acid batteries. Their load included two pallets which will shipped out as part of their backahul efforts.

MAJOR APPLIANCES (WHITE GOODS)

Major appliances (often called white goods) are an essential part of a community recycling program. In addition to being able to be used for refurbished parts, major appliances that are removed from your landfill and properly recycled help to reduce ozone depleting substances. These substances contribute to climate change and increase the possibility of skin cancer.

Manitoba Ozone Protection Industry Association (MOPIA) provides support to properly manage major appliances, and helps ensure you follow the required federal and provincial regulations to decommission major appliances. (Decommissioning involves removing the dangerous refrigerants and other ozone depleting substances from the appliances.)

White goods include the following items:

1. Those containing refrigerants and other ozone depleting substances:
    - Fridges
    - Freezers
    - Water coolers
    - Window air conditioner units
    - Dehumidifiers
    - Heat pumps
    - Any 115-230 volt self-contained plug-in units:
        - Drinking fountains
        - Pneumatic air dryers
2. Those without refrigerants:
    - Stoves
    - Dryers
    - Washing machines
    - Other appliances with an air conditioning, refrigeration and dehumidifying function

01 REGISTRATION

Individuals who are decommissioning or repairing major appliances need to have a certificate from the Manitoba Ozone Protection Industry Association (MOPIA). MOPIA's compliance guide outlines best practices and responsibilities of individuals and entities to ensure practices which follow provincial regulations.

However, if you ship major appliances from your community to a registered processing facility (such as Provencher Appliance in Winnipeg), the certificate is not required as some processors will do the decommissioning at their site.

- Manitoba Ozone Depleting Substance Act: MOPIA.CA/WP-CONTENT/MEDIA/ACT-MR-10394-2013.PDF
- MOPIA's compliance guide: MOPIA.CA/WP-CONTENT/MEDIA/ONLINE-COMPLIANCE-GUIDE-11.01-FINAL.PDF

02 COLLECTION & TRAINING

Community members should take their major appliances to the landfill or local collection site.

Collection sites should have enough space to accommodate bulky waste and have enough room for decommissioning, if you are doing so on site. You also want the space to segregate those major appliances that require removal of refrigerants (decommissioning) and those that do not.

Once major appliances are at the landfill or collection site, there are 3 approaches to managing refrigerant containing appliances:

1. The appliances can be decommissioned by removing the refrigerant on site. This involves obtaining certification as described above and obtaining the special equipment needed for refrigerant removal. Once the refrigerant is removed the appliance can be recycled along with other major appliances/ scrap metal.
2. You can contract a certified professional or company, such as another community or Provencher Appliance, to pick up the appliances and decommission them for you.
3. Contract a certified technician to decontaminate major appliances on site and remove decommissioned appliances with scrap metal

Best practice expressed in provincial regulation requires individuals who handle and work on any used or new refrigeration, air conditioning parts, refrigerants or equipment attached to the closed refrigeration loop to be certified through training offered by Manitoba Ozone Protection Industry Association (MOPIA). It is important to note that the certification needs to be renewed annually. In addition to having a certified technician to safely remove hazardous wastes, communities need to have the necessary equipment to remove and store refrigerants safely. You can register for training through MOPIA to become a registered technician.

- MOPIA certification training: MOPIA.CA/TRAINING/

Alternatives for communities that do not have a certified technician include partnering with other communities and contracting out the removal of refrigerants.

Although appliances with refrigerants can be shipped and decommissioned at another location, the chance for a leak or damage to the unit increases significantly. MOPIA prefers recovery on-site if possible.

03 STORAGE & EQUIPMENT

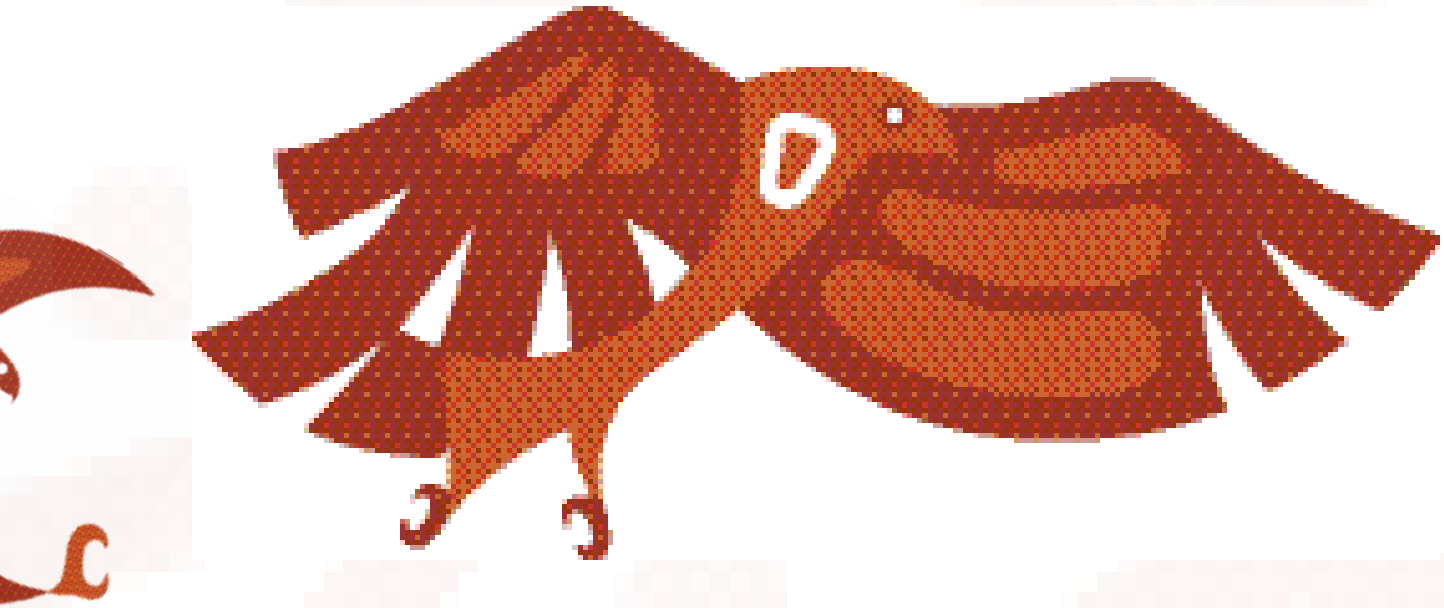
White goods should have a signed and designated area, which allows easy segregation and space for decontamination as well as appropriate ground cover (e.g. packed gravel) in case of leaking.

It is important to assess major appliances when accepted and before long term storage to ensure that there are no leaks. If there are leaks or spills, this should be reported immediately to Manitoba Conservation and Climate.

Equipment needed includes cut resistant gloves and a skid steer to move appliances.

If decommissioning of refrigerants is to occur on site, functional and up to date decontamination equipment and recovery equipment is required. In addition, recovery vessels should include appropriate labelling which can be found on MOPIA compliance guide under the required labels section:

MOPIA.CA/WP-CONTENT/MEDIA/ONLINE-COMPLIANCE-GUIDE-11.01-FINAL.PDF



04 TRANSPORT & REMOVAL

If you are not decommissioning (removing the refrigerant) on site, you can transport the appliances to a business/contractor that will decommission for you, or the business may be willing to pick up the appliances from your community for a fee. It is important to check their pricing and ensure that they are following the required procedures and regulations.

If you plan to remove refrigerants from major appliances on site, there will be refrigerant cylinders to transport for refrigerant disposal. The cylinders used to store and transport the refrigerant for disposal must be types approved by Transport Canada. When you are ready to transport cylinders of refrigerant from your community, it must be shipped according to the Dangerous Goods Handling and Transportation Act and Transportation of Dangerous Goods Act requirements. A shipping document must accompany any refrigerant being shipped. Here is an excellent summary of Transport Canada's requirements for Transportation of Dangerous Goods (TDG) with shipping documents you can print if needed:

- Transport Canada's requirements for Transportation of Dangerous Goods: TC.CANADA.CA/SITES/DEFAULT/FILES/2020-07/TDG_BULLETIN_-_SHIPPING_DOCUMENT_-_PDF_EN.PDF

Your community is considered the consignor (shipper) so when you fill out and/or sign a shipping manifest you are certifying the dangerous goods have been properly classified, packaged and labelled with safety marks according to the TDG Regulations.

Major appliances with the refrigerant removed can be shipped for recycling along with other scrap metal.

05 RECORD KEEPING

There are several types of records that must be kept when decommissioning or collecting major appliances:

1. **SPILLS.** Any site collecting major appliances must track refrigerant leaks. Small leaks should be recorded for reporting in the technician's annual record sheets. A leak over 22lbs must be reported that day to Manitoba Conservation and Climate. A one-page leak report form must be completed and faxed in to the Manitoba Government (Conservation and Climate), or sent electronically to ODS@GOV.MB.CA. MOPIA's website has a copy of this form, or call MOPIA to email or fax a Leak Report Form to you. Call 204-945-7100. Rural residents call 1-800-282-8069 extension 7100.

2. **RECORD DATA SHEETS.** Technicians & companies doing refrigerant removal must mail, fax or email copies of their record data sheets once per year by February 1st to MOPIA. The records should document the use of regulated substances for the period January 1 to December 31 of the previous year. Even if you have not used any regulated refrigerant or halon during the year, we need to record this within our database. Be sure to let MOPIA know your name and Certification Number or you may be "flagged" for possible investigation for not submitting records. A template of this tool can be found on the MOPIA compliance guide under Record Data Sheets: MOPIA.CA/WP-CONTENT/MEDIA/ONLINE-COMPLIANCE-GUIDE-11.01-FINAL.PDF

3. **REFRIGERANT RECOVERY DECLARATION.** Use this label when the unit has had the refrigerant recovered. This identifies it as empty and available for recycling, scrap or other purposes. These are commonly used on vehicle write-offs and major appliances. NOTE: You may purchase labels from MOPIA or design and print them independently, as long as the information label matches these samples - MOPIA.CA/WP-CONTENT/MEDIA/LABEL-ORDER-FORM-2021-ONLINE.PDF

CONTACT INFORMATION

MOPIA (Manitoba Ozone Protection Industry Association)

TELEPHONE: 204-338-2222
TOLL FREE: 1-888-667-4203
FAX: 204-338-0810
EMAIL: MOPIA@MOPIA.CA
WEBSITE: MOPIA.CA

Manitoba Environment, Climate and Parks

Note: All leaks over 22lbs/10kgs must be reported. Call MOPIA to email or fax a Leak Report Form to you.)

TELEPHONE: 204-945-6784
TOLL FREE: 1-800-214-6497
FAX COMPLETED LEAK REPORT FORM TO: 204-948-2338
EMAIL: ODS@GOV.MB.CA

MAJOR APPLIANCES COMMUNITY EXAMPLE

WASAGAMACK FIRST NATION

116 units were staged and decommissioned for backhaul. About 10 lbs of refrigerant gas was collected from the units in Wasagamack. These units will be backhauled on the winter road and properly recycled in Winnipeg.

MATTRESS & BOX SPRINGS

Mattresses and box springs, like many other material streams, can be recycled. Mother Earth Recycling, an Indigenous-owned and operated social enterprise based in Winnipeg, recycles the wood, foam, fabric and metal found in mattresses and box springs.

01 REGISTRATION

Mother Earth Recycling does not require registration to accept mattresses and box springs. However, as these are not yet provincially-mandated materials for recycling, there is a $18 fee per piece to cover the cost of recycling the mattresses or box springs, which is paid when dropping them off at Mother Earth Recycling in Winnipeg.

02 COLLECTION & TRAINING

There is no curbside pickup offered, so community members can either take mattresses to the landfill and the community looks after shipping them to Mother Earth Recycling (MER), or they can take mattresses directly to MER in Winnipeg.

There is no training required for landfill staff to collect and store mattresses. Mattresses do not need to be clean or dry in order for them to be recycled. Landfill staff should wear gloves when handling dirty or wet mattresses.

03 STORAGE & EQUIPMENT

Mattresses and box springs should ideally be kept dry and clean. The size of the area needing to store them depends on the amount collected each year and the duration of the storage period.

The area should have good signage to instruct community users and designed for ease of access for loading to transport off-site.

Storage areas should be weather protected, clean and prevent the accumulation of water.

04 ALTERNATIVE PROCESSING METHOD

Another option waste management crews can use to prevent mattresses from piling up at their waste site is mattress deconstruction. This process involves taking the mattress apart and sorting the different components into different waste piles. For example, the springs can go in with a scrap metal pile, while the textile waste can simply go in with

the household garbage. Wood waste from box springs can be burned, composted or reused in the community for garden boxes or other projects. Check out this link for more information on mattress deconstruction.

BUDGETDUMPSTER.COM/BLOG/HOW-TO-BREAK-DOWN-MATTRESS-AND-BOX-SPRING/

05 TRANSPORT & REMOVAL

Mattresses and box springs need to be delivered to Mother Earth Recycling at 771 Main Street in Winnipeg.

For community members dropping off units, the $18 payment per piece needs to be made at the time of drop off. If it is a landfill bringing multiple units in, MER can invoice the Band and they can pay via credit card over the phone, mail a check, or pay by e-transfer.

06 RECORD KEEPING

It is recommended to keep record of the amount of mattresses received within a year to budget for the drop off fee and to plan how much storage space is needed at the landfill.

CONTACT INFORMATION

Mother Earth Recycling

TELEPHONE: 204-942-7900
WEBSITE: MOTHEREARTHRECYCLING.CA/

RESIDENTIAL (HOUSEHOLD) RECYCLING & BEVERAGE CONTAINERS

Many communities want to start a residential recycling program perhaps because the 'blue box' is familiar and visible. While important, collection of blue box materials can be challenging to set up and operate. It will also require a budget, given it does not generate revenue as some might expect.

Multi-Material Stewardship Manitoba (MMSM) is the industry-funded stewardship organization responsible for residential recycling materials. They provide funding up to 80% of the net costs to operate a community's residential recycling program. This funding is available after the community is registered with MMSM and has completed its first full year of collecting materials.

Information based on: Landfill/Transfer Station Design Requirements for Stewardship Materials, The Backhaul Project (May 2019). Updated June 2022.

01 REGISTRATION

Once your community decides it wants to start a residential recycling program, you should:

- Contact MMSM for a copy of the Registration Guide. It can also be found here at: STEWARDSHIPMANITOBA.ORG/WP-CONTENT/UPLOADS/2022/02/MMSM-REGISTRATION-GUIDE-FORMS_2022.PDF
- Fill out and submit the Registration Form. Even if your recycling program is still in the planning stages, use this form to register with MMSM.
- Once the registration form has been received, the community will then receive copies of their funding agreements for signature. At this time, your community will also be asked to provide insurance as outlined in the funding agreement.
- Once your community has fully completed their registration and the program is operational, you will receive login information for MORS (Municipal Online Reporting System). A MMSM staff member will walk you through the first time and teach you how to upload your scale ticket backup.
- Municipal Recycling Funding Payments are paid out quarterly to communities that have met all of the criteria outlined in the funding agreement. Payments will be provided only for materials collected after the date the completed registration form is received by MMSM.

MANDATORY MATERIALS INCLUDE:

- Newspapers and flyers
- Magazines and catalogues
- Telephone directories
- Aluminum food and beverage containers
- Glass food and beverage containers
- Steel food and beverage containers
- PET (#1 plastic bottles)
- Gable top containers (such as milk and juice cartons)
- Boxboard (such as cereal boxes)
- Residential corrugated cardboard
- Aseptic packing (such as juice boxes)
- HDPE (#2 plastic) containers
- #4, #5 and #7 household plastic containers

02 COLLECTION & TRAINING

There are three options for collecting residential recycling:

1. Door-to-door pick up at each community member's home;
2. Central collection depot where community members drop off their residential recycling; or
3. Community members drop off residential recycling at a designated area in the landfill.

OPTION 1
DOOR-TO-DOOR COLLECTION

Will likely result in more community members recycling as it is the most convenient.

Decide whether to pick up residential recycling at the same time as trash collection or on alternate weeks (for example, collect recycling one week and trash the next).

Determine what type of container residents will use for residential recycling (to separate it from trash), such as a different colour plastic bag, a plastic box or a cardboard box.

Compare the pros and cons of different types of containers:

- Plastic recycling bin ("blue box") – Will last a long time and can be washed out but costs more at the start and does not have a lid to keep out animals or protect from wind blowing things around and rain getting it wet.
- Clear plastic bag – makes it easy for the truck driver to tell the difference between a bag of recycling from a black plastic bag of trash if picking up both at the same time but requires an ongoing supply of recycling bags, and animals/birds can tear the bags apart.
- Cardboard box – no or low cost and convenient to use but can fall apart if it gets wet and animals can get into it.

Decide who will pay for the bags, box or bin – community members or the Band.

OPTION 2:
CENTRAL COLLECTION DEPOT

May cost less to operate than door-to-door pick up, especially if you can use a section of an existing building.

Determine whether there is space in an existing building (such as a store, school or recreation facility) to use as the collection depot or if a new building is needed.

Find a central location that is easy for community members to access, which will help increase the number of community members who recycle.

Decide whether it will be staffed and if so, during what times and by who (e.g. paid staff or volunteers).

It is recommended that the depot be supervised in order to capture the correct materials and avoid illegal dumping.

OPTION 3
DROP OFF AT LANDFILL

Fewer community members are likely to participate as it requires more effort on their part and access to a vehicle.

On the positive side, it is an inexpensive way to start collecting residential recycling. Note that it is recommended that the landfill be staffed.

WHAT TO EXPECT FOR VOLUMES OF RESIDENTIAL RECYCLING:

- The recovery rate for residential recycling in Manitoba is 60 kilograms per person each year.
- For winter road access communities, you can expect a smaller volume of glass and bulky items, and a recovery rate of 25 kilograms per person each year.

TRAINING

There is no training required for landfill staff to handle blue box materials, as they should not include any hazardous materials. It is always recommended that landfill staff wear personal protective equipment, such as safety glasses.

03 STORAGE & EQUIPMENT

Large tote bags are recommended to store residential recycling. The tote bags can be stored at the landfill if you are doing door-to-door collection or at the central collection depot. The tote bags should be stored in a waterproof shed or sea container. The tote bags can be double-stacked in the shipping container or shed.

Other materials, such as batteries and electronic waste, can also be stored in the container.

Locate the shed or sea container to allow space for a truck to pull up and for a pallet jack or skid steer to get in to pull out the tote bags.

The amount of storage needed will depend on the volume of residential recycling collected (for all weather road access communities, assume 60 kilograms per person, per year). To ensure you have enough space, assume the residential recycling will be stored in tote bags and will not be compacted. (If your community has a compactor or baler, this will allow more materials to be stored in a given space.) The tote bags measure approximately 4’ x 4’ x 4’. Commingled (mixed) materials stored in tote bags weigh about 50 pounds.

Tote bags are available through:

Cascades Recovery

100 Omands Creek, Winnipeg
TELEPHONE: 204-632-4457
Portage and District Recycling
TELEPHONE: 204-856-3798
EMAIL: PDRI@MYMTS.NET
Recommended equipment at the landfill for residential recycling includes a skid steer or pallet jack, and (if volumes warrant) a baler.

04 TRANSPORT & REMOVAL

Residential recycling does not need any special packaging for transport, as the tote bags or bales should include only non-hazardous materials. The tote bags or bales need to be loaded onto a trailer for transport according to the hauler's requirements.

Find a list of processors and brokers in Manitoba here:

STEWARDSHIPMANITOBA.ORG/MUNICIPALITIES/RESOURCES/

Current for 2022:

STEWARDSHIPMANITOBA.ORG/WP-CONTENT/UPLOADS/2022/01/PROCESSORS-AND-BROKERS-OPERATING-IN-MANITOBA-01-25-2022.PDF

05 RECORD KEEPING

Once your community has fully registered with MMSM and materials have been shipped to a processor, you will need to submit scale tickets through an online portal called MORS (Municipal Online Reporting System). Scale tickets are to be submitted monthly and if not, then quarterly.

Digital scale tickets are provided from the licensed processing facility. Scale tickets will be provided to the driver who will then give to the community contact. Tickets will then be scanned and uploaded into the Municipal Online Reporting System (MORS) to document the weight of the materials collected. A comprehensive guide to using MORS can be found here: https://stewardshipmanitoba.org/wp-content/uploads/2013/10/MMSM-MORS-GuideBook.pdf

Participating communities must complete the annual cost monitoring survey provided by MMSM each spring.

06 INSURANCE REQUIREMENTS

Each year, communities participating in the MMSM program must provide Certificates of Insurance naming MMSM for the amount indicated, including both Commercial General Liability Insurance and Automobile Liability Insurance. Details on the insurance requirements can be found in the funding agreement once your community is fully registered with MMSM.

CONTACT INFORMATION

Multi-Material Stewardship Manitoba (MMSM)

TELEPHONE: Municipal Services Program 1-877-952-2010 (toll-free)
EMAIL: INFO@STEWARSHIPMANITOBA.ORG
WEBSITE: WWW.STEWARDSHIPMANITOBA.ORG
RESIDENTS: WWW.SIMPLYRECYCLE.CA

Additional resources from the Municipal Services Program include:

- Municipal Communications Toolkit
- Municipal Recycling Guide
- Municipal Recycling Poster

To educate community residents on what is and isn't accepted in their recycling program, encourage them to use the Recyclepedia on SimplyRecycle.ca or download the free Recyclepedia app.

SIMPLYRECYCLE.CA/RECYCLEPEDIA/

You can access all of these resources here:

STEWARDSHIPMANITOBA.ORG/MUNICIPALITIES/RESOURCES/

RESIDENTIAL RECYCLING COMMUNITY EXAMPLE

BUNIBONIBEE CREE NATION

Bunibonibee Cree Nation was among the first communities in the North to get a baler and begin baling cardboard and other recyclables. In 2022 BCN shipped 36 bales of cardboard down to GFL (Green for Life) in Winnipeg via the winter ice roads. In 2023 the waste management team collected and baled a whopping 76 bales of cardboard (over 75,000 lbs!). In 2024 the waste management team had another busy year, collecting and baling 60 bales of cardboard. These bales will be sent to Winnipeg on the winter ice roads in the coming weeks.

RESIDENTIAL RECYCLING BEVERAGE CONTAINERS

Beverage containers, such as cans and bottles, are common items that community members dispose of in public spaces like schools, recreation centres, arenas, Band Offices, parks and other shared spaces.

The Canadian Beverage Container Recycling Association (CBCRA) operates the Recycle Everywhere program. If your community already operates a residential recycling program, you can apply for free beverage container collection bins through the Recycle Everywhere program. They will also provide posters to promote the program to community members along with guidance on how to implement a successful program.

Information based on: Landfill/Transfer Station Design Requirements for Stewardship Materials, The Backhaul Project (May 2019). Updated June 2022.

01 REGISTRATION

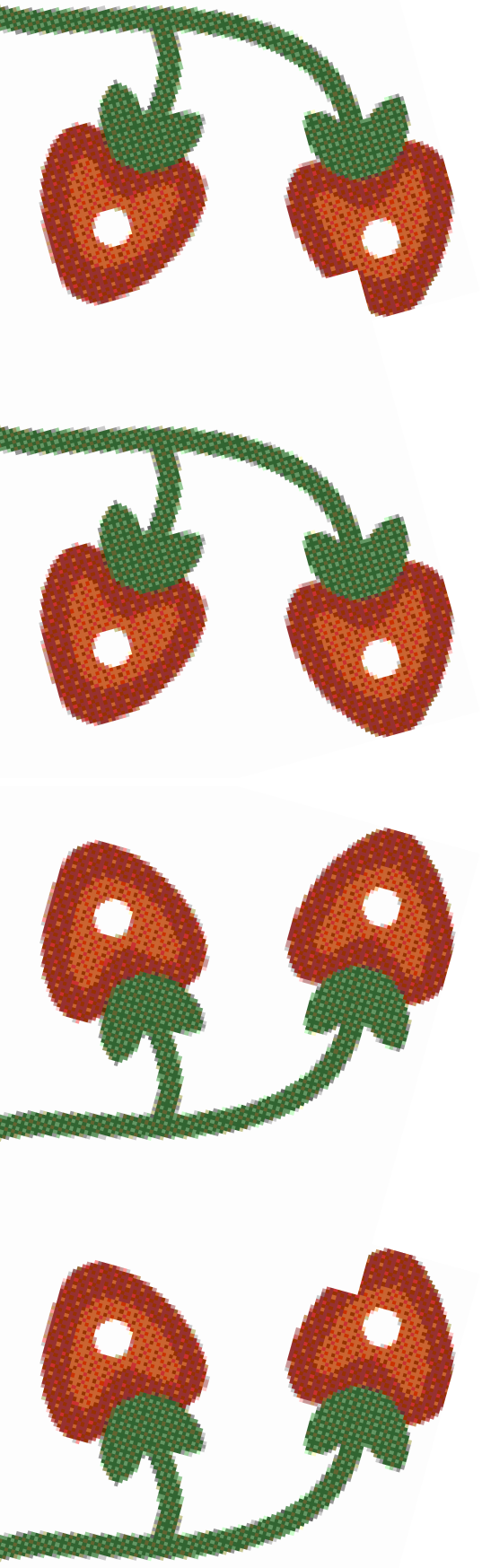
It is not necessary to register with the CBCRA Recycle Everywhere program, however, you will want to be registered to collect residential recycling through Multi-Material Stewardship Manitoba (MMSM).

You can apply for the free beverage container collection bins through the CBCRA website:

RECYCLEEVERYWHERE.CA

02 COLLECTION & TRAINING

1. Set up a system to identify where the bins will be placed in the community, how the bins will be emptied, and how the containers will be transported to the landfill.
2. Ensure each Recycle Everywhere bin is paired with a waste bin and use clear bags (or no bags) to collect the recyclable beverage containers.
3. Once the Recycle Everywhere bins are full, you can transport the materials to your landfill to combine with other residential recycling materials.



03 STORAGE & EQUIPMENT

The beverage containers collected from the Recycle Everywhere bins can be combined with those collected from community members' homes.

04 TRANSPORT & REMOVAL

Once the beverage containers from the Recycle Everywhere bins are taken to the landfill, follow the transport guidance provided in this toolkit for residential (household) recycling.

05 RECORD KEEPING

No record keeping is required to collect beverage containers in public spaces other than knowing where the Recycle Everywhere bins are to be placed in the community.

CONTACT INFORMATION

Canadian Beverage Container Recycling Association (CBCRA)

Recycle Everywhere Program

TELEPHONE: 1-877-810-7362
EMAIL: INFO@RECYCLEEVERYWHERE.CA
WEBSITE: RECYCLEEVERYWHERE.CA

SCRAP METAL

Scrap metal can cause great harm to the environment and water sources. Recycling scrap metal can save space in landfills and keep things looking tidy. There are many companies in Manitoba that accept and/or purchase scrap metal based on weight and type of metals recycled and current market prices. Some scrap metal recyclers will pick up at your landfill depending on location. Call the scrap recycler ahead of time to confirm what they will accept.

Scrap metal can include:

- Steel, copper, brass, aluminum, stainless steel, high-temperature alloy or lead
- Certain white goods such as dishwashers, stoves, washers, dryers
- Common metal items such as bicycles, bbqs, metal boats
- Scrap vehicles with hazardous materials removed (see the guidance in this toolkit for End-of-Life/Scrap Vehicles)

Scrap metal does not include:

- Hazardous materials (paint, oil, antifreeze)
- Radioactive materials (smoke detectors, radium luminous devices)
- Non-metallic items (tires, wood, ceramics)
- Compressed gas cylinders (propane, helium)
- Items containing refrigerants (compressors, air conditioners, fridges, freezers)
- Items containing PCBs (transformers, capacitors)
- Explosives (firearms, live ammunition)
- Flammable materials (gasoline, solvents, oil)
- Other hazardous materials (pesticides, fluorescent lights, thermostats, car and truck lead batteries)

Check out the guidance provided in this toolkit for information on hazardous materials and fridges/freezers.

01 REGISTRATION

No registration is required.

02 COLLECTION & TRAINING

Community members can either drop off their scrap metal at the landfill or take it directly to a scrap metal recycler.

There is no training required for landfill staff to handle scrap metal assuming it does not contain any hazardous materials (like those contained in scrap vehicles or fridges, freezers and air conditioners).

03 STORAGE & EQUIPMENT

Set aside and sign an area of the landfill for scrap metal. It does not need to be weather protected.

04 TRANSPORT & REMOVAL

Some scrap metal recyclers will pick up from your landfill depending on location. If you transport small loads of scrap metal yourself, ensure that the loads are properly secured.

If you are looking for the latest and most current scrap metal prices in Manitoba, you should telephone at least three scrap yards. The more scrap yard prices you can compare, the more likely you are to sell your scrap metal for a better price per pound. Prices fluctuate a lot from year to year and from month to month. (Source: Ten Steps of a Successful Backhaul, CIER, 2018)

The following is a list of scrap metal recyclers in Manitoba that you can contact (current as of March 2021):

SCRAP METAL RECYCLER	CONTACT INFORMATION	WEBSITE
Chisick Metal	2141 Logan Ave, Winnipeg (204) 632-1045	
Gerdau Selkirk	1 Railway St., Selkirk (204) 482-3241	GERDAU.COM/
Industrial Metals	550 Messier St., Winnipeg 1-800-661-7414 | (204) 233-1908 info@industrialmetals.ca	INDUSTRIALMETALS.CA/
Interlake Salvage and Recycling	47 Patterson Dr, Stonewall (204) 467-9344 interlakesalvage@mymts.net	INTERLAKESALVAGE.CA/
Orloff Scrap Metals	410 King St., Winnipeg (204) 589-4303	ORLOFFSCRAPMETALS.CA/
Rakowski Recycling	454 Archibald St., Winnipeg (204) 231-4050	RAKOWSKICARTAGE.COM/RAKOWSKI-RECYCLING/
Urbanmine Inc.	72 Rothwell Rd, Winnipeg 1-866-820-2786 | (204) 774-0192	URBANMINE.CA/
Wesman Salvage	855 49th St, Brandon (204) 726-8080 admin@wesmansalvage.com	WESMANSALVAGE.COM/

05 RECORD KEEPING

It is recommended to keep record of the tonnage of scrap metal removed from the landfill. This can be shared with Chief and Council and community members to show what and how much scrap metal is being recycled. It can also help landfill operators plan how much scrap metal to expect for storage and removal.

SCRAP METAL COMMUNITY EXAMPLE

LITTLE SASKATCHEWAN FIRST NATION

In November 2023, the waste management team in Little Saskatchewan First Nation managed to remove two 40 yard bins of scrap metal from their transfer station site for recycling. Waste Connections came out to do the pick up.

TIRES

Tires are one of the easiest materials to manage at the landfill. Tire Stewardship Manitoba will cover the cost of picking up tires from your community and pay 50 cents per tire if you are registered with their program and follow their guidelines.

The Tire Stewardship Manitoba guidelines for communities include:

- Accept all tires from Manitoba residents at no charge.
- Do not bury or burn any tires.
- Ensure proper storage of tires.
- Keep records of all tire collections.

Information based on: Landfill/Transfer Station Design Requirements for Stewardship Materials, The Backhaul Project (May 2019). Updated June 2022.

01 REGISTRATION

The first step is to register with Tire Stewardship Manitoba: Community Registration Application

TIRESTEWARDSHIPMB.CA/TIRE-RECYCLING-MANITOBA/COMMUNITY-REGISTRATION-APPLICATION

The completed application form can be mailed or faxed to Tire Stewardship Manitoba:

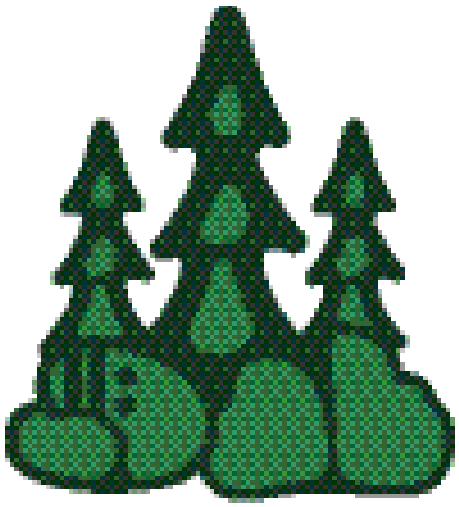
MAIL: Tire Stewardship Manitoba | 1791 Dublin Ave, Unit B | Winnipeg, MB | R3H 1A9

FAX: 1-204-668-9704

All registered communities will be issued a Certificate of Registration. This will have a unique registration number for your community to be used in all communications with Tire Stewardship Manitoba.

02 COLLECTION & TRAINING

- Let community members know they can drop off tires at the landfill.
- Sign the area to show where the tires are to be dropped off.



03 STORAGE & EQUIPMENT

- Store the tires in an area designated “TIRES ONLY”.
- Separate the piles of small to medium sized tires from the large (OTR) tires.
- Preferably tires are clean and off the rims.
- Stack tires, preferably in rows.
- Make tires easily and readily accessible in a location that is free of obstacles and allows the tires to be loaded directly onto the hauler’s truck.
- Arrange the tires so there is enough room for a truck and trailer to park next to the pile of tires.
- Store the tires on a solid foundation so that a truck and trailer can pick up tires even when it rains (then the truck won’t sink in the mud).

04 TRANSPORT & REMOVAL

To arrange the removal of tires out of your community:

1. Contact Engineered Rubber Aggregate Corp (ERA) 1-204-314-0072 (specializes in collection for norther and remote First Nation communities) or Reliable Tire Recycling 1-204-774-0725 or toll free: 1-877-900-0724
2. Provide them with an accurate count of the number of tires you have.

For small, regular and medium sized tires, generally you must have a minimum of 1 semi load (1000 tires) or 1 year has passed since the last collection.

For OTRs (large tires), generally you must have a minimum of 1 semi load (250 tires) or 1 year has passed since your last collection.

There is no charge to have the tires hauled out of your community.

05 RECORD KEEPING

- Keep a record of all tires accepted, stored and transported out of the community
- Ensure you recieve a receipt from Reliable Tire Recycling or ERA and the number of tires picked up. Keep that in your files to compare with the annual payout from Tire Stewardship Manitoba and ERA to confirm you have recieved the right amount.
- Tire Stewardship Manitoba will pay once per year for your community’s tire collection based on the number of tires transported out of the community. They will get this information directly from Reliable Tire Recycling.
- A payout report will be sent to your community by Tire Stewardship Manitoba indicating each date tires were transported out of your community by Reliable Tire Recycling and the number of tires they picked up.
- The eligible payout to your community is calculated by the number of tires x 50 cents per tire collected. For example, 1,000 tires x 50 cents per tire = $500.
- The payout report and related cheque payment will be mailed to the community by February 15 for the previous year’s collection, covering January 1 to December 31.

06 ERA TIRE PROCESSING

ERA uses a mobile shredder to produce the Tire Derived Aggregate (TDA) for the communities we serve. TDA can be used to improve rural

roads and improve soil stability and drainage for public and private infrastructure. For more information on in-community uses of tire derived aggregate/shredded tire material, please contact Peter Schroedter at 1-204-768-0319.

07 INSURANCE REQUIREMENTS

Tire Stewardship Manitoba (TSM) assumes no responsibility with respect to delivery schedules or arrangements made for the storage, collection, and processing of tires.

Insurance coverage and compliance with all laws are the responsibility of the parties that store, collect/haul, or process tires.

CONTACT INFORMATION

Tire Stewardship Manitoba

TOLL FREE: 1-866-724-5002
EMAIL: INFO@TSMB.CA
WEBSITE: TIRESTEWARDSHIPMB.CA

TIRE COMMUNITY EXAMPLE

BUNIBONIBEE CREE NATION

In 2022/23, Bunibonibee Cree Nation collected and backhauled a whole semi-truck load of tires (about 900). The tires were staged which helped reduce the amount of snow and water which would make them heavier to load. In 2023/24 Bunibonibee collected another full semi-truck load of tires and had them staged and ready to be backhauled on the winter road.

USED OIL, ANTIFREEZE AND CONTAINERS

Setting up collection and shipping of used oil and antifreeze is important to start as only one litre of used oil is enough to contaminate one million litres of groundwater. Setting up a system to manage used oil in your community is a bit complex, but the Manitoba Association of Resource Recycling Corp. (MARRC) is committed to helping you through every step along the way.

MARRC supports collection and recycling of:

- Used oil from any internal combustion engine
- Used oil filters
- Oil containers (1L, 4L, and 20L pails)
- Used antifreeze
- Used antifreeze containers
- Diesel exhaust fluid (DEF) containers

Once you are set to collect and ship all of these items, an approved processor will remove the waste from your community for free and MARRC will pay a rebate for the items removed and some of the labour required to collect the materials. Your community also has the option of working with MARRC to set up a used oil burner to heat a building.

Information based on: Landfill/Transfer Station Design Requirements for Stewardship Materials, The Backhaul Project (May 2019). Updated June 2022.

01 REGISTRATION

Once your community decides it wants to collect used oil and antifreeze, you should contact MARRC and the environment department at Indigenous Services Canada to get assistance with the registration process. You will have to fill out "Environmental Review - Project Form" with an Environment Officer at Indigenous Services Canada and register as a generator of hazardous waste with the province.

Before starting to collect, store or burn any used oil, there are a number of important federal and provincial regulations to be sure you are following to keep yourself and the environment safe.

Collection sites for used oil located on provincial land must meet the Manitoba Regulation 195/2015 Hazardous Waste Regulation:

WEB2.GOV.MB.CA/LAWS/REGS/CURRENT/_PDF-REGS.PHP?REG=195/2015

Used Oil storage tanks must meet the Manitoba Regulation 19/2011 Storage and Handling of Petroleum Products and Allied Products Regulations:

WEB2.GOV.MB.CA/LAWS/REGS/CURRENT/_PDF-REGS.PHP?REG=188/2001

Sites on provincial land where used oil burning units are installed must comply with the two regulations above as well as applicable Fire/ Building Code requirements:

LAWS-LOIS.JUSTICE.GC.CA/PDF/SOR-2008-197.PDF

Collection sites that include used oil storage and/or used oil burning units located on First Nations land must meet Federal Storage Tank Systems for Petroleum and Allied Petroleum Products Regulations (SOR/2008-197) and as a best management practice meet MR 195/2015.

02 COLLECTION & TRAINING

Used oil and associated products are not acceptable for "curbside" residential collection and, as a best management practice, should be delivered to a collection site by individuals. Offering a drop-off day at a central location in the community can also work really well for collecting used oil.

On average, a community of 1,000 people will generate:

- 1000L of used oil per year
- 250L of used antifreeze
- 750 - 1000 used oil filters
- Used oil containers (1L: 150-200, 4L: 40-50, 20L: 90)
- 60 4L antifreeze containers
- 16 9L DEF containers

Program specific training is provided by MARRC: "Operator Training – Eco-Centre Procedures". The training includes basic instruction on managing used oil products during storage and for shipment including required TDG training. You can find a link to MARRC's manual for collectors here:

USEDOILRECYCLINGMB.COM/COLLECTORS/

Additional training is available through MARRC when used oil is intended for use in a burning unit. The training includes basic instruction on managing a burning unit including storage of used oil and required TDG training.

03 STORAGE & EQUIPMENT

Used oil must be stored in an approved storage tank system in accordance with regulations and best management practice. Heated storage is not required.

If used oil is intended for use in a burning unit the storage of the used oil and the burning unit must meet applicable regulations. Contact MARRC for detailed requirements.

Used oil filters and used anti-freeze are stored in 205 litre steel drums. Drums must meet MR 195/2015 and TDG requirements. Storage must be weather protected, but does not need to be heated. Drums should be stored on pallets. The operator must supply the drums and pallets. Drums may be purchased at an industrial container supply company such as Great West Containers.

Used oil, anti-freeze and DEF containers should be stored in plastic bags supplied by MARRC. A bag hoop is used to aid filling the bags and is supplied by MARRC. Storage must be weather protected, but does not need to be heated.

Regulation requires the storage area include signage clearly indicating hazardous waste is being stored at the location. In addition, operators should consider signs advertising that used oil and used oil products are being collected at that location.

Other necessary supplies include:

- A pallet jack, forklift or skid steer to move and load pallets onto truck
- A drum dolly where pallets are not used
- Appropriate TDG labels for storage and transport supplied by MARRC
- A spill kit containing absorbent. Spill kits may be purchased at any industrial safety supply company.

04 TRANSPORT & REMOVAL

When you are ready to transport your used oil/antifreeze you can find a list of processors to contact here:

USEDOILRECYCLINGMB.COM/USED-OIL-AND-ANTIFREEZE-PROCESSORS/

Contact MARRC if you have any questions about which processors to contact. Two commonly used transporters/processors in Manitoba are Green for Life and Notre Dame Used Oil.

Used oil and used oil filters must be shipped as hazardous waste in accordance with Transportation of Dangerous Goods, the Dangerous Goods Handling and Transportation Act, and MARRC requirements.

Used oil containers, anti-freeze, anti-freeze containers and DEF containers should be shipped in accordance with MARRC requirements.

Operators should contact MARRC to ensure they are meeting all requirements before removing products from a community.

05 RECORD KEEPING

1. The operator must inspect the storage area every 30 days and keep inspection records for a minimum of 2 years. (MR 195/2015)
2. When hazardous waste is shipped from a community a movement document/ manifest must accompany each load. The waste generator is responsible for ensuring the manifest is present during transport. Manifest records should be kept for 2 years. (TDG)
3. Oil dispensed into the tank should be tracked, both the delivery date and volume of oil.
4. MARRC requires records of used oil diversion amounts. Details are provided during their operator training program.
5. MARRC requires a yearly cost summary invoice from the community each year to reimburse for staff time, tools/supplies purchased, insurance, and advertising needed to manage your used oil/antifreeze recycling program.

An excellent summary of Transport Canada's requirements for Transportation of Dangerous Goods (TDG) with shipping documents that you can print if needed can be found here:

TC.CANADA.CA/SITES/DEFAULT/FILES/2020-07/TDG_BULLETIN_-_SHIPPING_DOCUMENT_-_PDF_EN.PDF

Your community is considered the consignor (shipper) so when you fill out and/or sign a shipping manifest you are certifying the dangerous goods have been properly classified, packaged and labelled with safety marks according to the TDG Regulations.

06 INSURANCE REQUIREMENTS

Used Oil Collection Depots in Manitoba with used oil tanks under 5,000 litres do not have to be licensed thereby also eliminating the requirement for insurance. However, most communities with existing depots already cover the facilities under their blanket General Insurance.

MARRC requires the communities in which they are financially involved to be covered by insurance. They do not need be named on the certificate of insurance.

Any new Used Oil Collection Depots that come on board are often organized in concert with setting up a Household Hazardous Waste (HHW) collection depot through Product Care at the same site. HHW sites are required to have a license and MARRC can also be included on that license, which includes insurance requirements.

CONTACT INFORMATION

Manitoba Association for Resource Recovery Corp. (MARRC)

TELEPHONE: 204-632-5255 | 1-888-410-1440
FAX: 204-633-9380
EMAIL: MARRC@MTS.NET

USED OIL, ANTIFREEZE & CONTAINERS COMMUNITY EXAMPLE

ST. THERESA POINT FIRST NATION

In 2020, St. Theresa Point First Nation partnered with MARRC to install their second used oil burner in the community in their vehicle recycling and repair garage. (The first burner is heating the building that houses the fire truck.)

This used oil will be used to heat the building, eliminating the need to transport it out of the community.

5

LANDFILL / TRANSFER STATION RESOURCES

A. SUGGESTED EQUIPMENT & SUPPLIES

Landfill / Transfer Station staff will need a variety of Personal Protective Equipment (PPE) and other supplies to safely and efficiently manage the landfill. Here is a suggested list with estimated prices. Estimated costs are current as of May 2021 and subject to change.

IMPORTANT!

- Provision of many of the tools listed in this note should be accompanied by proper policies, procedures and instruction. For example, power tools can pose risk to personal safety and should be accompanied by safe work procedures and instruction for staff not familiar with the safe use of the tool.
- First Aid Training should accompany the provision of a First Aid Kit.
- Staff should be trained on the use of a fire extinguisher, etc.
- For more information, consult Safe Work Manitoba (https://www.safemanitoba.com/) and the industry stewardship organization responsible for a specific material.

NOTE: These lists are not exhaustive but rather serve as a starting point for information on PPE equipment for landfill, transfer station and 4R facility operators. Needs will vary depending on the types and volumes of materials being handled.

PERSONAL PROTECTIVE EQUIPMENT (PPE)*

ITEM	QUANTITY	EST. COST	NOTES
Steel-toed boots	Per pair	$200	
Winter work boots	Per pair	$250	
Winter work jacket & pants – option 1	Set	$350	High visibility (sufficient if not handling chemicals or flammables)
Winter work jacket & pants – option 2	Set	$500	High visibility, chemical and fire resistant
Rain jacket and pants	Pair	$200	
Summer coveralls	Each	$200	
Single-use Tyvec suit	Box of 25	$200	
Safety vest	Each	$30	High visibility
Hard hat	Each	$30	
Gloves (multiple kinds)	Approx. one year's worth	$340	PVC (chemical resistant), nitrile, cotton, leather gloves
Safety glasses	Per pair	$25	
Safety goggles	Per pair	$25	
Ear protection – ear plugs	100 pairs	$120	Single use
Ear protection – ear muffs	Each	$30	Reusable
TOTAL PER OPERATOR		**~$2,000**	

*The level of personal protective equipment (PPE) required for staff will depend on the job being performed.

HEALTH AND SAFETY

ITEM	QUANTITY	EST. COST	NOTES
First aid kit	1 large	$50	
Portable eye wash kit	1	$100	
Self-contained eye wash station	1	$800	Includes reservoir and does not require water hookup. If there is water hookup, cost is $500.
Drinking water		--	Refillable jug if no water hookup
Hand washing water		--	
Hand cleaner	4L jug	$25	
Fire extinguishers	2 – 10 lb. cannisters	$250	
Water pump pack	Each	$300	
Methane detector	1	$100	

Bear spray	2 cannisters	$120	
Spill kit	1 large + 1 travel size	$600	
Granular absorbent	Per bag	$30	Can use cat litter or wood chips
Absorbent pads	Per package	$75	
Protective apron	Each	$30	
Fire proof container	1	$50	For oily rags

TOOLS AND EQUIPMENT

ITEM	QUANTITY	EST. COST	NOTES
Shovels	3	$150	2 small square shovels and 1 for snow clearing
Broom and dust pan	2 sets	$100	
Duct tape	6-roll pack	$75	
Floor squeegee, mop & pail		$75	For concrete floor clean-up
Degreaser floor cleaner		$25	For concrete floor clean-up
Shop rags	20 lb bag	$20	
Plastic pail lid opener	Each	$50	
Drum bung wrench	Each	$25	
Drum dolly	Each	$100	
Power tools	Various	$450	Such as Ryobi 6-tool combo with drill, driver, impact driver, reciprocating saw, circular saw, work light
Hand tools	Various	$300	Such as hammer, pliers, wire cutters, exacto knives, screwdriver set, wrench set
Wheelbarrow	1	$150	
Shrink wrap		varies	
Pallets		varies	May be possible to find used pallets locally
Tote bags		varies	Check for used tote bags
Pallet jack		$500	Ensure pallet jack chosen will work outdoors in cold weather if needed
Skid steer		varies	Should include pallet jack and bucket

Heavy equipment to compact waste cell		varies	Such as a dozer
Sea containers to store materials		varies	Basic container currently (spring 2021) costs around $7,500. Depending on planned use of the sea container, modifications may include non-slip flooring, insulation, vandal-proof windows for ventilation, and additional doors. Consult with the industry stewardship organization for the specific materials being stored. Cost for a modified sea container varies from $15,000-$20,000.
Chain & padlock to secure sea can	1 each	$65	
Pad preparation for sea container		$3,000	Cost will vary for gravelling and levelling the pad site
Remote communication		varies	Such as satellite phone or cell phone booster

*See Section 3 for any additional supplies needed for specific types of waste materials. Some supplies not listed here are provided by the industry stewardship organizations.

OPERATOR SHED AND WASHROOM*

ITEM	QUANTITY	EST. COST	NOTES
Desk	1	$125	
Chairs	3	$60	
Shelves	1	$60	
Filing cabinet	1	$70	2-drawer
Office supplies (per year)	Multiple	$140	Pens, calculator, notebooks, file folders, binders
Coffee maker, kettle	1 each	$80	
Microwave	1	$100	
Mini-fridge	1	$150	
Washroom / Port-o-potty	1	$1,000	Alternative is a composting toilet, such as Nature's Head at $1,500

*The operator shed/trailer must be insulated and heated. Water supply is strongly encouraged to allow an eye wash station, drinking water and hand washing. Suggested size is 400 sq ft (minimum 200 sq ft).

It is important to provide a locker or somewhere for staff to change at the start and end of the day, especially for workers who come into contact with hazardous material. This helps to ensure the workers are not exposing their family, vehicle or home to any contaminants they were in contact with that day.

C

SAMPLE JOB POSTINGS / DESCRIPTIONS

Landfill staff are the true land and water protectors. They separate and sort material at the landfill, ensure it is stored and handled safely, and coordinate getting it shipped out of the community.

SAMPLE 1

JOB OPPORTUNITY
WASTE DRIVER/COLLECTOR

ROLE: Collect and transport waste and recyclable materials to landfill, and other duties as directed by the Landfill Operator or Chief and Council.

MAIN RESPONSIBILITIES:

- Collect waste and recyclable materials from community members' homes, band office, school, public waste/recycling bins, and other designated pickup sites throughout the community, and transport to landfill
- Ensure proper separation and diversion of recyclable materials
- Monitor equipment use at the beginning and end of each day
- Work with Landfill Operator and Chief and Council on a regular basis
- Respond to community questions regarding waste and recycling
- Other duties as assigned

REQUIREMENTS:

Valid Manitoba Class 5 driver's license

- Ability to lift/carry heavy loads (50+lbs)
- Willing to work in all weather conditions

RECOMMENDED TRAINING:

- First Aid/CPR
- SWANA (Solid Waste Association of North America) - Landfill Operator Basics
- WHMIS (Workplace Hazardous Materials Information System)
- TDG (Transportation of Dangerous Goods) Act and Regulations

HOURS & PAY: {set by community}

SEND RESUME AND COVER LETTER TO: {set by community}

CLOSING DATE: {set by community}

SAMPLE 2

JOB OPPORTUNITY

LANDFILL OPERATOR

ROLE: Oversee the day-to-day operations of the landfill facility, maintain records and report to Chief and Council and relevant industry recycling programs.

LANDFILL SITE RESPONSIBILITIES:

- Oversee all traffic to/in landfill site
- Ensure proper separation and diversion of recyclable and hazardous materials
- Provide direction for staff and public regarding proper separation and disposal of materials
- Move recyclable and hazardous materials to designated areas
- Work with industry recycling programs to obtain the tools, equipment and training for proper operation
- Ensure equipment needed for collection and storage of materials is available
- Monitor equipment use
- Supervise workers/contractors
- Maintain safety for the site and for workers
- Provide clear and safe instructions for public entering the landfill site
- Respond to community questions regarding disposal at site
- Compact waste in pit daily; use cover if available
- Maintain overall site cleanliness and litter control
- Work with Chief and Council on a regular basis

RECORD KEEPING & REPORTING RESPONSIBILITIES:

An important part of the landfill operator's role is to register, log and report on waste and recyclables collected to both Chief and Council and industry recycling programs.

- Monitor waste received at site
- Keep daily/weekly logs
- Schedule appropriate agencies/transporters to pick up recyclable or hazardous materials to transport out of the community and record/collect receipts for what is removed
- Provide reports to Chief and Council and the relevant industry recycling programs

SKILLS AND REQUIREMENTS:

- Computer skills definite asset
- Strong organizational and supervisory skills
- Valid Manitoba Class 5 driver's license
- Ability to lift/carry heavy loads (50+lbs)
- Willing to work in all weather conditions

RECOMMENDED TRAINING:

- Heavy Duty Equipment Operator
- First Aid/CPR
- SWANA (Solid Waste Association of North America), including:
  - Landfill Operator Basics
  - Manager of Landfill Operations
  - Landfill Fire Training
- WHMIS (Workplace Hazardous Materials Information System)
- TDG (Transportation of Dangerous Goods) Act and Regulations

HOURS & PAY: {set by community}

SEND RESUME AND COVER LETTER TO: {set by community}

CLOSING DATE: {set by community}

COMMUNITY SOLID WASTE COORDINATOR – JOB DESCRIPTION
{FIRST NATION} SOLID WASTE MANAGEMENT PROGRAM

In establishing a waste management program within a community, there is a need for additional community capacity to implement the new solutions. During this period of transformative change in the waste management of particular communities, a dedicated waste coordinator working hand in hand with the community and external stakeholders to support both the development and implementation of uniquely tailored solutions is essential for the success of the community program. The change in community behaviour will also be critically important for the sustained success of the community's program.

A Community Solid Waste Coordinator is needed for capacity at an aggregate level to support the community of {First Nation} in administration and research required to work with the Department of Indigenous Services Canada (ISC, formally known as Indigenous and Northern Affairs Canada-INAC) to access funding, support waste diversion, conduct education and awareness; seek new solutions; set up training opportunities for the waste operator(s) and others as required; and overall championing of solid waste management.

JOB TITLE: Community Solid Waste Coordinator

TIME FRAME: {insert specified length of time here – ex: 2 years beginning April 1, 2022}

SALARY/HOURLY WAGE: {Insert yearly salary or hourly rate}

ROLE & RESPONSIBILITIES

Partnership and Stakeholder Relations

- Foster a sense of pride in the community, be the champion for the waste program, and seek and establish a working group so that the local group feels empowered to carry on the supportive role.
- Look for opportunities to build partnerships with other communities and organizations.
- Explore sources of external funding. Prepare funding proposals and associated documentation.
- Liaise and consult with government agencies, industry, and commercial business.
- Represent communities at meetings, workshops and forums.
- Undergo informal training and orientation process with participating Manitoba Producer Responsibility Organization (PRO) programs.
- Coordinate/facilitate access to resources and rebate programs. This can include but is not limited to:

  - PRO programs
  - Province of Manitoba Rebates
  - Federal Funding Opportunities
  - Cost Sharing resources
  - Coordination of resources through partnerships with local municipalities or organizations

Local Entrepreneurial Initiatives

- Promote local entrepreneurial initiatives related to waste and recycling.
- Planning, contributing to or supporting the management of third party arrangement, diversion or waste hauling services, or contract negotiation or renewal
- Identify methods to improve waste system – participate in reviewing and identifying new waste management strategies which my efficiently manage waste

Compliance Monitoring (Provincial & Federal Regulation & Policy)

- Development of waste management by-laws
- Partnership development in support of adherence to waste management best practices
- Performing site investigations, surveys, or observing operations to ensure adherence to applicable regulation.
- Identify mitigation or adaptation to the community waste program to meet applicable regulation and policy requirements.

Plan Development and Implementation

- Lead community meetings to identify waste management options and review proposed solutions
- Monitor and assess needs in consultation with community leaders based on information from reports and observations, including waste characterization/audits results.
- Description of relevant trends and outlook for waste management needs, and challenges and key factors for success
- Research into waste management alternatives and service providers
- Review and manage environmental consultancy projects and contracts. Review and monitor agreements with consultants and contractors and recommend actions as appropriate
- Identify, where feasible, small scale capital acquisitions or training that may be supported to help the community attain results
- Update on the ongoing basis, the Operation & Business Plans (prepared by the consultant) as required based on the tasks specifically in this section.

Public Education & Awareness

- Development, delivery, and presentation of sustainable community waste management educational and outreach materials including; initiatives, benefits, risks of poor waste management, and the three R's (Reduce, Re-use, Recycle)
- Work with First Nation leadership on community consultation and engagement activities throughout project implementation
- Coordinate media releases, respond to public, and corporate inquiries regarding regional waste initiatives
- Work with partnership organizations to provide awareness pieces such as:
  - School awareness
  - Radio shows
  - Town hall events

Reporting

- Coordinate reporting requirements for stakeholders and funders. Examples of reporting requirements include, but are not limited to:
  - Preparing final reports to Funders
  - Waste Audit reports
  - Monthly Written Updates to Chief and Council Regarding the activities, progress and trends of waste management program.
- A financial or budget expenditures report which details operation and maintenance costs, MTSA fees, Disposal Fees, Collection Fees and Human Resources/Salary expenditures.
  - Maintain and keep supporting documents required to substantiate O& M costs. Forecast detailed future costs needs of various activities within the program
  - Provide a final report that documents the process undertaken with communities, including interviews, photos, monthly updates, successes and challenges, education and capacity building needs and opportunities, and tangible waste minimization results.

Other duties may also be required at a later date.

MINIMUM QUALIFICATIONS:

A Solid Waste Coordinator must demonstrate the following:

- Knowledge and respect for First Nations community(s), culture, traditions, and practices.
- Post-secondary education in Environmental Sciences, or a combination of equivalent education and experience is required for this position. However, a Grade 12 education with a combination of experience may be accepted.
- Experience in environmental services, including project management and supervision would be an asset.
- Organizational skills with the ability to manage multiple tasks and competing priorities.
- Knowledge and experience in the application of applicable federal and provincial environmental assessment and environmental protection legislation and laws.
- Knowledge and experience in developing, implementing and monitoring Best Management Practices and/or First Nations laws for environmental assessment and environmental protection.

SAMPLE 3 | 3 OF 3

- Familiarity with Healthy and Safety requirements.
- Recommended Qualifications:
- Trouble shooting and problem-solving skills.
- Must be self-motivated, and able to work with minimal supervision.
- Experience in social media and word processing programs (ex. MS Word, MS Power Point, MS Excel).
- Ability to interpret, implement and adhere to the organizational policies and procedures of the First Nation.
- Understand current issues, challenges and opportunities for waste minimization in Manitoba and in particular, {First Nation} and First Nation communities.
- Superior verbal, written communication, and advanced presentation skills.
- The ability to communicate in written and verbal format in English is required.
- The ability to communicate in {traditional language of First Nation} is a strong asset.
- Valid Class 5 Manitoba Driver's license.
- Access to a vehicle.
- Ability to travel extensively within the province and work irregular hours (required).
- Access to a cell phone with data plan.

ELIGIBLE EXPENDITURES ASSOCIATED WITH A COMMUNITY SOLID WASTE COORDINATOR:

The following is a list of Eligible Expenditures which may be associated to a waste coordinator. These include, but are not limited to, the following:

- Travel Time
- Training opportunities
- Equipment/Personal Protective Equipment
- Materials/publications
- Hospitality for meetings and materials
- Administrative costs

Disclaimer: The above statements describe the general nature, and type of work required of this position. This is not intended to be an intensive list of all requirements. Job descriptions are not intended to and do not imply or create any employment, compensation or contract rights to any person or persons. {First Nation} reserves the right to add, delete, or modify any and/or all provisions of this description at any time as needed without notice.

LANDFILL / TRANSFER STATION SIGNAGE

Signing collection areas at the landfill or transfer station is key to keeping recyclable and hazardous materials separated from the rest. Bloodvein First Nation, Fisher River Cree Nation and Peguis First Nation installed bilingual signs at their landfills. (Fisher River sign translation by Elder Dorothy Crate and original design by student Jayde McKay.)

QUICK CONTACT LIST

From industry stewardship groups to transporters and recyclers, this handy contact list includes groups you would be contacting most often.

WHO TO CALL – RECYCLABLE MATERIALS (EFFECTIVE MAY 2021)

CONSUMER (HOUSEHOLD) BATTERIES

Call2Recycle

TELEPHONE (TOLL FREE): 1-888-224-9764
EMAIL: CUSTOMERSERVICE@CALL2RECYCLE.CA
WEBSITE: CALL2RECYCLE.CA

ELECTRONICS

Electronic Products Recycling Association (EPRA)

TELEPHONE (TOLL FREE): 1-888-567-4535
EMAIL: INFO@RECYCLEMYELECTRONICS.CA
WEBSITE: RECYCLEMYELECTRONICS.CA/MB

HOUSEHOLD HAZARDOUS WASTE

Product Care Association

TELEPHONE (TOLL FREE): 1-877-592-2972
EMAIL: MANITOBA@PRODUCTCARE.ORG
WEBSITE: PRODUCTCARE.ORG/PROVINCE/MANITOBA/

LEAD BATTERIES

Canadian Battery Association

EMAIL:
INFO@CANADIANBATTERYASSOCIATION.CA
WEBSITE: CANADIANBATTERYASSOCIATION.CA

MAJOR APPLIANCES (WHITE GOODS)

For training on refrigerant removal (fridges/freezers/air conditioners):

Manitoba Ozone Protection Industry Association (MOPIA)

EMAIL: MOPIA@MYMTS.NET
TELEPHONE: 204-338-2222
WEBSITE: MOPIA.CA/

For transport out of community:
Provencher Appliance

TELEPHONE: 204-233-2977
WEBSITE: PROVENCHERAPPLIANCE.CA/

MATTRESSES & BOX SPRINGS

Deliver to:

Mother Earth Recycling
771 Main St., Winnipeg
TELEPHONE: 204-942-7900
WEBSITE: MOTHEREARTHRECYCLING.CA/

PROPANE (RESIDENTIAL CYLINDERS)

For transport out of community:

Prairie Propane

TELEPHONE: (204) 999-2146
EMAIL: via website contact form
WEBSITE: HTTPS://PRAIRIEPROPANE.CA/

RESIDENTIAL RECYCLING

To register with the program:

Multi-Material Stewardship Manitoba (MMSM)

TELEPHONE (TOLL FREE) MUNICIPAL SERVICES PROGRAM: 1-877-952-2010

EMAIL: INFO@STEWARDSHIPMANITOBA.ORG

WEBSITE: STEWARDSHIPMANITOBA.ORG

Find list of Manitoba processors here:

STEWARDSHIPMANITOBA.ORG/MUNICIPALITIES/RESOURCES/

Tote bags are available through:

Cascades Recovery

100 Omands Creek Blvd, Winnipeg

TELEPHONE: 204-632-4457

PORTAGE AND DISTRICT RECYCLING
TELEPHONE: 204-856-3798

EMAIL: PDRI@MYMTS.NET

SCRAP METAL

Scrap metal recyclers in Manitoba:

TIRES

To register with program:

Tire Stewardship Manitoba

TELEPHONE (TOLL FREE): 1-866-724-5002

FAX: (204) 668-9704

EMAIL: INFO@TSMB.CA

WEBSITE: TIRESTEWARDSHIPMB.CA

To transport tires out of community:

Reliable Tire

TELEPHONE (TOLL FREE): 1-877-900-0724

EMAIL: via website contact page

WEBSITE: RTRRUBBER.CA/

USED OIL/ANTIFREEZE/DIESEL EXHAUST FLUID

Manitoba Association of Resource Recovery Corporation (MARRC)

TELEPHONE (TOLL FREE): 1-888-410-1440

FAX: (204) 633-9380

EMAIL: MARRC@MYMTS.NET

WEBSITE: USEDOILRECYCLING.COM/EN/MB

Chisick Metal	2141 Logan Ave, Winnipeg (204) 632-1045	
Gerdau Selkirk	1 Railway St., Selkirk (204) 482-3241	gerdau.com/
Industrial Metals	550 Messier St., Winnipeg 1-800-661-7414 | (204) 233-1908 info@industrialmetals.ca	industrialmetals.ca/
Interlake Salvage and Recycling	47 Patterson Dr, Stonewall (204) 467-9344 interlakesalvage@mymts.net	interlakesalvage.ca/
Orloff Scrap Metals	410 King St., Winnipeg (204) 589-4303	orloffscrapmetals.ca/
Rakowski Recycling	454 Archibald St., Winnipeg (204) 231-4050	rakowskicartage.com/rakowski-recycling/
Urbanmine Inc.	72 Rothwell Rd, Winnipeg 1-866-820-2786 | (204) 774-0192	urbanmine.ca/
Wesman Salvage	855 49th St, Brandon (204) 726-8080 admin@wesmansalvage.com	wesmansalvage.com/

COMMUNITY WASTE DISPOSAL HABITS SURVEY

It can be helpful to understand how community members currently deal with their household waste. Check out this sample survey and adjust as needed to fit your community's situation.

SAMPLE: COMMUNITY WASTE DISPOSAL HABITS SURVEY

1. Where do you get information on how to manage your waste?

2. What can the community do to help you recycle (more)?

3. How do you currently dispose of your electronics and batteries?

4. How do you currently dispose of your tires, car battery, and used oil?

5. How do you currently dispose of your large appliances/furniture/mattresses?

6. How do you currently dispose of chemical waste? (such as old paint, cleaning products)

7. Do you recycle your household waste (such as plastics, cans, bottles, paper, cardboard)?

   Yes [ ] No [ ]

   a. If "Yes," how many large bags does your household produce weekly?

b. If "No," why don't you recycle?

c. What materials do you commonly recycle? What do you do with your food waste?

8. Do you reuse items such as bottles, cans, paper, shopping bags, etc.?

   Yes [ ] No [ ]

   a. If "Yes," which items do you often reuse?

   b. If "No," why don't you reuse these items?

9. Do you burn your waste or garbage?

   Yes [ ] No [ ]

   a. If "Yes", what do you burn and how often?

10. If you hunt or fish, where do you dispose of any animal waste?

11. How many people are living in your household?

12. Who is responsible for disposing of your household garbage?

13. How many large bags of garbage does your household make each week?

14. Please suggest ways to reduce waste and increase recycling in the community:

WINTER ROAD BACKHAUL PROJECT

Transporting recyclable and hazardous materials from remote communities presents an additional set of challenges. Starting in 2019-20, industry stewardship groups have collaborated with a number of remote First Nation communities in Manitoba to remove materials on the winter road.

Learn more about the pilot project here:

GREENACTIONCENTRE.CA/WP-CONTENT/UPLOADS/2021/05/2019_20-BACKHAUL-PROJECT-SUMMARY-REPORT-FINAL.PDF

Find the 2021 and 2022 backhaul reports online here (in the Landfill Resources slider):

GREENACTIONCENTRE.CA/LANDFILL-FNWM/

LINKS TO OTHER RESOURCES

MANITOBA RESOURCES

- Innowaste (Centre for Indigenous Environmental Resources): INNOWASTE.INFO/
- Find Your Eco-Depot (Province): GOV.MB.CA/SD/WASTEWISE/ECODEPOT.HTML
- First Nations Waste Minimization (Green Action Centre): GREENACTIONCENTRE.CA/FIRST-NATIONS-WASTE-MINIMIZATION/
- Indigenous Food First (CIER): IFFCULTURE.CA/
- Manitoba Industry Stewardship Programs: GOV.MB.CA/SD/MB_RECYCLING/
- WasteWise (Province): GOV.MB.CA/SD/WASTEWISE/

CANADIAN RESOURCES

- First Nations of Quebec and Labrador Sustainable Development Institute: FNQLSDI.CA/
- First Nations Technical Services Advisory Group (AB): TSAG.NET/
- Indigenous Zero Waste Technical Advisory Group (BC): IZWTAG.COM/