



Industry & Partner Organizations

Preparing a Solid Waste Management Plan
Prairie Region



Presenters



Cesar Flores

Green Action Centre
First Nation Waste Minimization
Program



Aaron Campbell

First Nations Technical Services
Advisory Group (TSAG)



Dave Brass

Saskatchewan Aboriginal
Land Technicians (SALT)

Supporting Waste Reduction in Manitoba's First Nations

First Nations Waste Minimization Program



Background

- FNWM started as a pilot program in 2017-18
- Collaboration between the Southeast Resource Development Council, Indigenous Services Canada, Green Action Centre, and participating First Nations.
- Started with 3 communities: Bloodvein First Nation, Peguis First Nation and Fisher River Cree Nation.
- Number of communities we support has since grown to 23 First Nations.
- Varying levels of support are provided based on community needs, priorities, and readiness.



Our team's first toolkit and prototype logo

MEET THE TEAM!



AMY SMITH
PROGRAM MANAGER



CESAR FLORES
LEAD PATHFINDER



MO CROSSMAN-SERB
LEAD PATHFINDER



MARALEIGH SHORT
COMMUNITY
PATHFINDER



JORDAN GUIBOCHE
COMMUNITY
ENGAGEMENT
COORDINATOR



HARRISON BRIAND
BACKHAUL
COORDINATOR

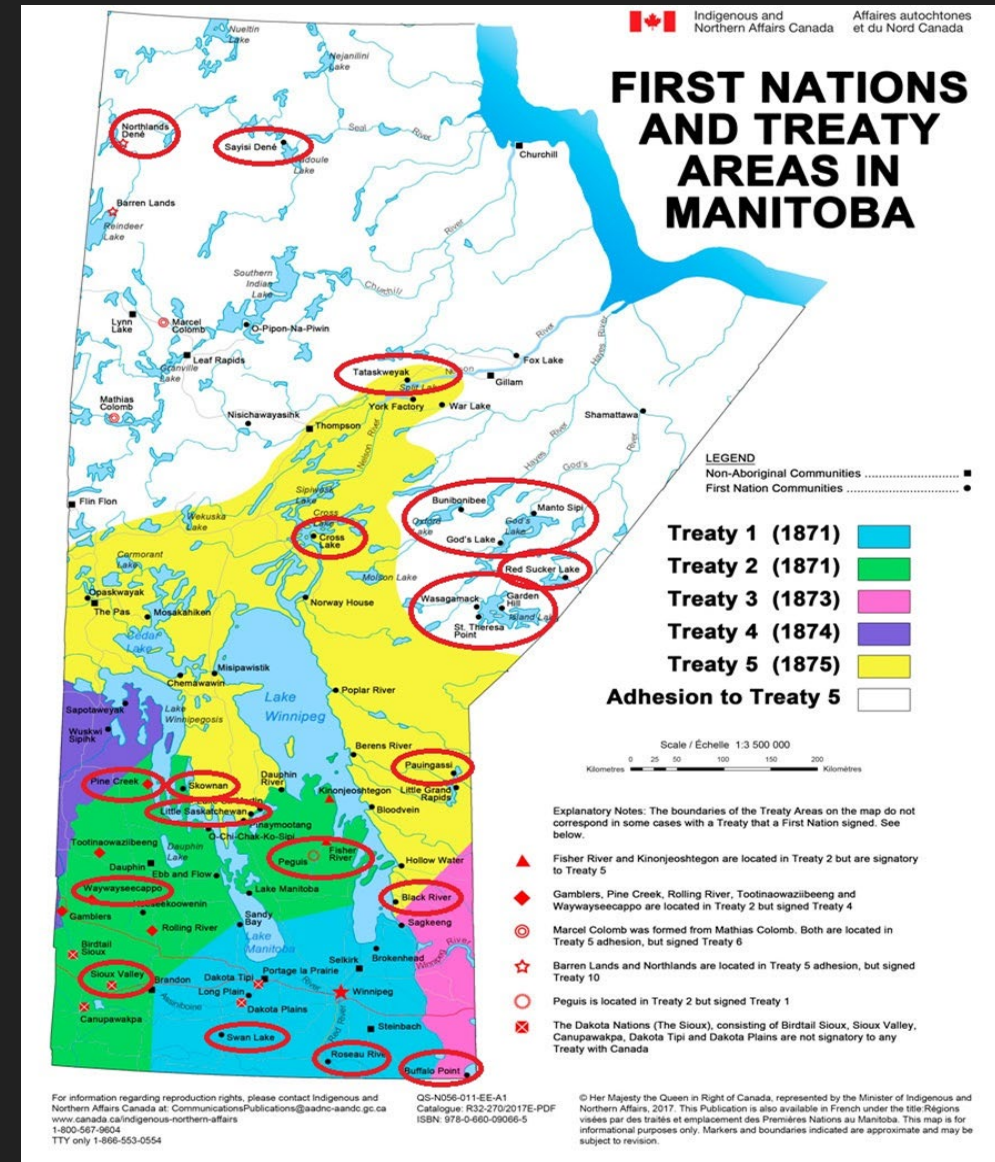


NEEPIN COOK
JUNIOR PATHFINDER

COMMUNITIES

- **Northern First Nations:**
 - Bunibonabee Cree Nation
 - Cross Lake First Nation
 - Garden Hill Anisininew Nation
 - God's Lake First Nation
 - Manto Sipi Cree Nation
 - Northlands Denesuline First Nation
 - Pauingassi First Nation
 - Red Sucker Lake Anisininew Nation
 - Sayisi Dene First Nation
 - St. Theresa Point Anisininew Nation
 - Wasagamack Anisininew Nation
 - Tataskweyak Cree Nation

- **Southern First Nations:**
 - Black River First Nation
 - Buffalo Point First Nation
 - Fisher River Cree Nation
 - Little Saskatchewan First Nation
 - Peguis First Nation
 - Pine Creek First Nation
 - Roseau River Anishinabe First nation
 - Sioux Valley Dakota Nation
 - Skownan First Nation
 - Swan Lake First Nation
 - Waywayseecappo First Nation



Challenges faced by First Nations Waste Management

1

Funding



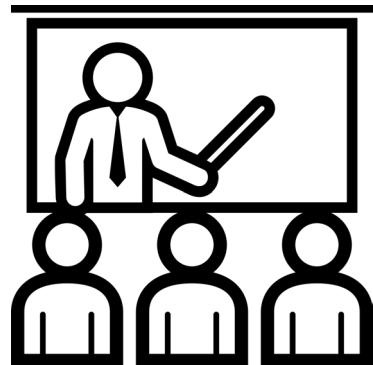
3

Geography



2

Community Awareness



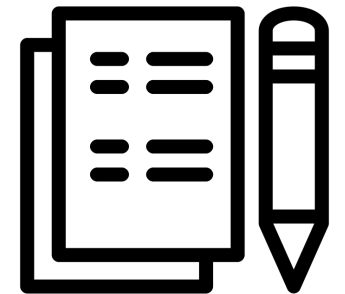
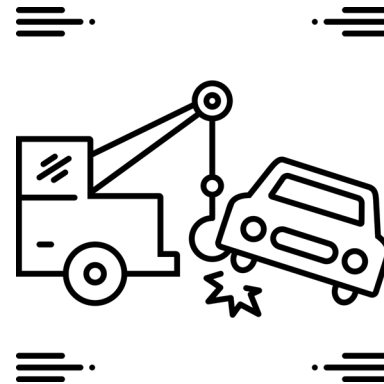
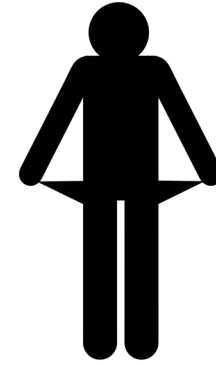
4

Site Operations



Funding

- Funding shortages (\$250k cap)
- Staff shortages
- Equipment shortage/breakdown
- Higher transport costs
- Control of assets/rebates
- Other sources of funding (non-ISC)
- Producer Responsibility Organization registration



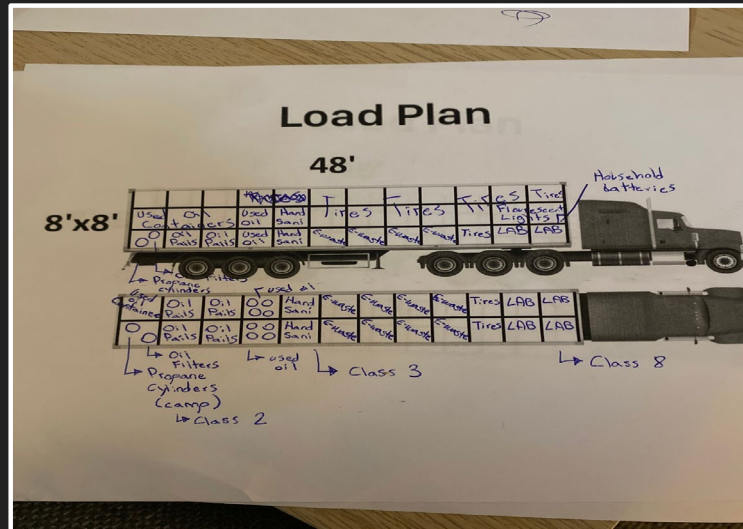
Challenges

Geography



Remote Geography makes waste diversion dependent on winter roads. Variability of opening and closing dates makes the window to remove waste uncertain and complex to plan for.

Backhaul Transportation



For Backhaul to function smoothly it is key to have transporters going into First Nations that are willing to bring material back to processors. Finding willing backhaul partners is sometimes challenging.

Regulations



Environmental and Dangerous Goods regulations make it challenging to send materials via winter road. TDG equivalency certificates are needed for some materials to be removed.

Challenges

Lack of Indoor Storage



Heavy snowfall buries some staged material in communities. Some of this material can become inaccessible. Cold weather can cause pallets to freeze to the ground, rendering the palletized material unsafe to move or load.

Staffing



Most waste management teams are 1-4 people in size. Often high turnover in community waste management roles. Capacity is maxed out. Difficult to build momentum.

Availability of Equipment



Cold weather can impact machine function and operations. Occasionally, borrowed equipment is needed by multiple program areas at the same time, which increases load times.

Successes



Landfill & Recycling Operations

Toolkit

- Unique resource for FN communities
- Free print copies for FN leadership and waste coordinators
- Designed by graphic designer Leticia Spence (Winnipeg Jets Indigenous Logo)
- 3rd Edition printed in 2024



Landfill & Recycling Operations

Toolkit

Includes information on

- Community champions & highlights
- Material diversion
- List of needed PPE & supplies
- Suggested training
- Ideas for community engagement

TABLE OF CONTENTS

1	OVERVIEW OF WASTE MANAGEMENT	02
	A) Benefits of Reducing and Minimizing Waste	04
	B) Respect Reduce Re-use Recycle	05
	C) Industry Stewardship Organizations in Manitoba	07
	D) The Path to Reducing Waste	08
	E) Reality Check	09
2	GETTING COMMUNITY SUPPORT	10
	A) Community Involvement	10
	B) Local Champions	11
	C) Ideas to Reduce Waste and Encourage Re-use	12
3	COMMUNITY HIGHLIGHTS	14
	A) Buffalo Point First Nation – Household Hazardous Waste	14
	B) Bunibonabee Cree Nation – Residential Recycling	14
	C) Garden Hill First Nation – End-of-Life (Scrap) Vehicles	14
	D) Fisher River Cree Nation – School Composting	15
	E) Wasagamack First Nation – Lead Batteries	15
	F) Little Sask First Nation – Electronic Waste	15
	G) Little Sask First Nation – Scrap Metal	15
	H) Black River - Bike Rodeo	15
	I) St. Theresa Point – Used Oil Burners	16
	J) Bunibonabee First Nation – Tires	16
	K) Pine Creek - Mattresses Pilot Project	16
	L) First Aid Training – Multiple Communities	16
	M) White Goods Pilot	16

4	DEALING WITH WASTE MATERIALS	17
	A) Composting (Organic Waste)	18
	B) Consumer (Household) Batteries	27
	C) Electronic Waste (including Cell Phones)	32
	D) End-of-Life (Scrap) Vehicles	37
	E) Household Hazardous Waste	49
	F) Lead Batteries	54
	G) Major Appliances (White Goods)	61
	H) Mattresses and Box Springs	67
	I) Residential (Household) Recycling and Beverage Containers	69
	J) Scrap Metal	77
	K) Tires	80
	L) Used Motor Oil, Antifreeze and Containers	83
5	LANDFILL & TRANSFER STATION RESOURCES	88
	A) Recommended Supplies & Equipment	88
	B) Training for Staff	89
	C) Sample Job Postings	92
	D) Landfill & Transfer Station Signage	97
	E) Quick Contact List	98
	F) Sample Community Waste Disposal Habits Survey	100
	G) Backhaul Project for Winter Road Communities	102
	H) Links to Other Resources	103

Backhaul Program

Goods go in, waste comes out

- Collaboration between Producer Responsibility Organizations (PROs), First Nations, and our FNWM team.
- Uses the winter ice road infrastructure.
- In 2025-26, 30 truckloads were hauled out of 9 participating First Nation communities.



2024/2025 Backhaul Highlights

Before



After



2024/2025 Backhaul Highlights

Before

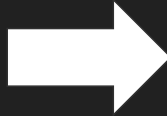


After



2024/2025 Backhaul Highlights

Before



After



Fridges and Freezers

Refrigerant Removal

- Freezers and fridges, pose a significant challenge because they are not stewarded materials in Manitoba. There is not a provincial stewardship program that will handle and offer financial support to First Nations wanting to remove them.
- Old fridges and freezers cannot be removed over the winter road if they still have refrigerant because the likelihood of refrigerant leaking from the old appliances is too high.
- Refrigerant leaking is a risk to the environment because some of the refrigerants are Ozone Depleting Substances or pose a Global Warming Potential and can be toxic to human health.
- Since the refrigerant in these legacy waste appliances cannot be reused, the appliances fall under the Hazardous Waste Regulation in Manitoba.
- Once refrigerant is removed by a trained technician the fridges and freezers can be removed as scrap metal.



White Goods

Refrigerant Removal

- Between November 2023 and November 2025, 1,015 fridges and freezers were inspected for refrigerant evacuation from Bunibonibee, Saint Theresa Point, Wasagamack, Northlands, Roseau River and Fisher River.
- Four FNWM team members were certified and trained through MOPIA to remove refrigerant, and we purchased the equipment to do refrigerant evacuation.
- 2 community waste management staff passed MOPIA certification exam



Landfill & Recycling Operations

Regional Trainings - Bunibonibee Cree Nation

- Why regional trainings?
 - Allows networking between communities & team building
 - Trainer can address local challenges
 - No need to navigate a big city
 - Indoor/outdoor learning
 - More economical per participant
- Two trainings were held in Bunibonibee Cree Nation
 - Safety First - Recognizing hazards in waste management work
 - Waste Management 101 - included practical components such as used oil bulking lead-acid battery packing



Landfill & Recycling Operations

Regional Trainings - St.

Theresa Point

- Two
Th



Saint
ke
nunities



Waste Coordinator Conference

- 1st event took place April 4-5, 2023 at Wyndham Garden hotel. 16 Waste and Recycling Coordinators from 9 First Nation communities attended.
- 2nd event took place October 26, 2023 at the Viscount Gort hotel. 20 waste management staff from 10 First Nation communities attended.





**FIRST NATIONS
WASTE MINIMIZATION**

204-925-3777 ext. 107

fnwm@greenactioncentre.ca

[@firstnationswasteminimization](https://www.instagram.com/firstnationswasteminimization)



Thank you!

Any questions?

A project of Green Action Centre.



Solid Waste Management Program Summary

First Nations
Technical Services
Advisory Group Inc.

TSAG Overview

- First Nations (AB) Technical Services Advisory Group Inc.
- Non-profit corporation started in 1998
- Mandated by Chiefs of Alberta Steering Committee
- Steering Committee and Board of Directors from First Nations in Treaties 6, 7, and 8 in Alberta
- Provides a variety of technical services and training to Alberta's First Nations



TSAG Programs Overview



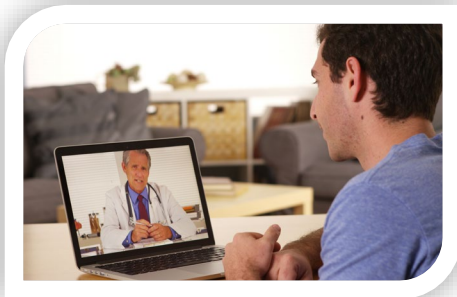
Circuit Rider
Training Program



Infrastructure
Services (EACRS)



Sustainable
Communities



Alberta Indigenous
Virtual Health Clinic
(AIVCC)

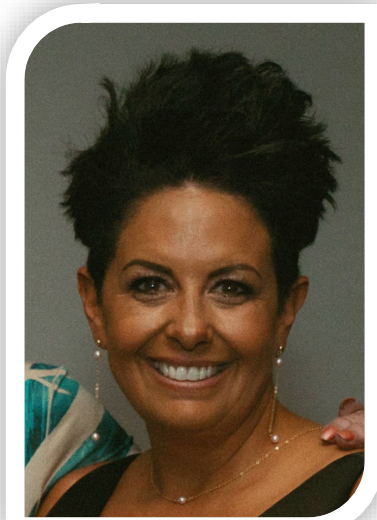


Housing Condition
Assessment Program
(HCAP)

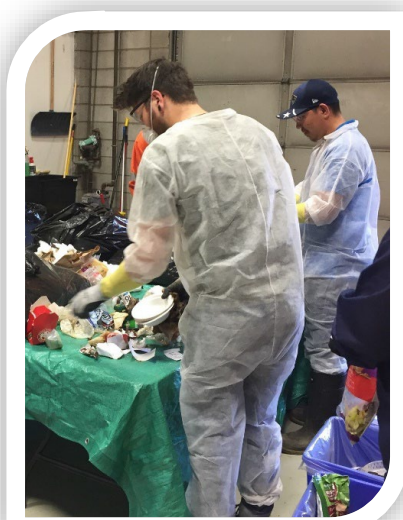


Fire Protection
and Prevention

Sustainable Communities Team



Monica McColman
Program Director



Aaron Campbell
Environmental
Specialist



Tom Kinderwater
Senior Waste
Management Advisor



Roshan Boorada
Youth and Community
Outreach

Vision

- Effective and safe solid waste management systems in every First Nation in Alberta.

Mission

- To support First Nation autonomy in the development, operation, and maintenance of economically, socially, and environmentally sound solid waste management systems.

Sustainable Communities Program Overview

- Our team provides on-site, hands-on training and mentoring services to waste management operators to promote safe operations, environmentally responsible disposal of waste, and promotes participation in waste diversion programs to Alberta's First Nations.
- TSAG offers accredited classroom and on-site training for First Nations solid waste management operators.
- Our senior technical advisor and environmental specialist provide technical support and oversight on waste management capital projects at the request of the Nation.
- We respond to community requests to improve waste diversion and develop community plans to manage solid waste more effectively.



School Outreach Educational Boxes

- TSAG's Solid Waste Educational Boxes are a hands-on resource designed to support teachers in First Nations schools across Alberta by providing engaging, age-appropriate environmental learning materials.
- Each box is carefully prepared with ready-to-use lesson plans, interactive activities, and culturally relevant learning materials that can be easily integrated into existing curricula.
- These boxes mirror the success of TSAG's Fire Boxes and are tailored to bring waste reduction, recycling, and sustainability concepts into the classroom in meaningful and practical ways.



Waste Management Operator Training

Classroom training courses are offered in-person:

- **Transfer Station Basics Certification**
 - Provides certification and information to waste management operators on safe site operations, waste diversion, and material handling.
- **Ozone Depleting Substances Awareness Certification and Refrigerant Recovery Training**
 - Provides certification and hands-on training for removing and recovering refrigerant from appliances to reduce disposal costs and limit environmental risks.
- Support and funding for landfill operators to take SWANA Landfill Operator Certification Courses.



On-Site Waste Management Operator Training

- In addition to the classroom training courses, TSAG also provides on-site training for operators at their waste transfer station.
- This provides more customized training and operational assistance, especially for new operators and new waste management systems.
- Hands-on support and training includes material management, sorting, storage, contacts, and procedures to effectively manage a waste transfer station.



Transfer Station Basics Online

- To respond to the need for new operators to receive training during the pandemic, our team migrated the Transfer Station Basics Course onto an online learning platform.
- Originally it was developed to be instructor-led online, but we have recently updated the course to be self-led to allow participants to go through the course at their own pace.
- Participants can receive the training virtually through completion of online modules and quizzes.



Zero Waste Circuit Rider Program

A Zero waste circuit rider is a solid waste management expert that visits communities with the intent to assess, educate, report, and support Alberta's First Nations communities.

- Used successfully in British Columbia for many years
- Mirrors the Water and Wastewater Circuit Rider program operated by TSAG.

The circuit rider will collaborate with solid waste management operators and administrators for each community to improve their waste management systems.



Supporting Relationships with External Agencies

Alberta Recycling Management Authority (ARMA)

- Supporting and encouraging Nations to participate in waste diversion programming for tires, electronics, paint, and used oil.
- Meetings on program updates and how these updates affect First Nations communities. Ongoing education regarding how FN communities differ from municipalities.

Regional Landfills and Waste Authorities

- TSAG continues to support relationships between First Nations and Regional Landfills. Opening lines of communication has lead to better service and dispute resolution.



Extended Producer Responsibility

- Extended Producer Responsibility (EPR) shifts the physical and financial burden of collecting, sorting, processing and recycling waste to the producer and away from local governments and taxpayers.
- Phase 2 will begin in October 2026 to include communities that do not already have a curbside recycling program.
- TSAG is working with ARMA to help Alberta First Nations sign up and participate in the program.



Infrastructure Project Support

- TSAG provides technical support and input for First Nations that are constructing or purchasing solid waste management infrastructure as required. This can include:
 - Providing input on infrastructure needs based on site visits, meetings, and waste management experience to Indigenous Services and First Nations
 - Providing design input on infrastructure projects as required.
 - Providing input, recommendations, and contacts for equipment purchases including vehicles and waste bins.



Solid Waste Annual Performance Assessment

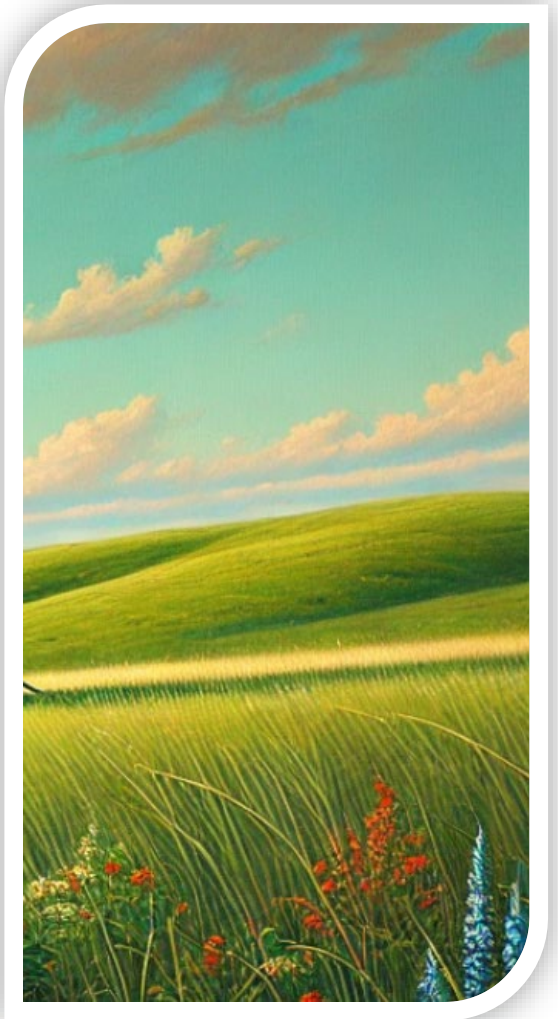
This program follows a data collection process similar to water and wastewater API and EACRS but focus on solid waste assets and operations:

- Assessments are typically completed on the same schedule as EACRS and provided back to the First Nation and to ISC when completed.
- The goal of the assessments is to ensure that First Nations have everything they need to run an effective waste management system.



Solid Waste Performance Assessments - WASKI

- Providing a new way to view and interact with your community's waste management information in our online database – WASKI
- This will allow easier access to all your data including EACRS inspections, Circuit Rider reports, Housing and Fire assessments, ect...
- Users can comment on information contained in the assessment and can be updated more regularly.



Summary – Positive Outcomes

- Alberta First Nations have made significant progress on improving waste management infrastructure and equipment with funding and support from ISC and TSAG since 2016.
- Improved infrastructure has led to improved waste diversion practices and more waste being removed from First Nations and transferred to regional landfills.



Summary - Areas to Improve

- Waste diversion practices and participation still have significant room for improvement.
- First Nations' waste management practices are still lagging behind most municipalities in Alberta.
- Environmental contamination risks related to waste management On-Reserve are higher than their Provincial counterparts.



THANK YOU!

Monica McColman

Technical Services Director

mmcolman@tsag.net

(780) 483-8601

Aaron Campbell

Environmental Specialist

acampbell@tsag.net

(403) 350-5399

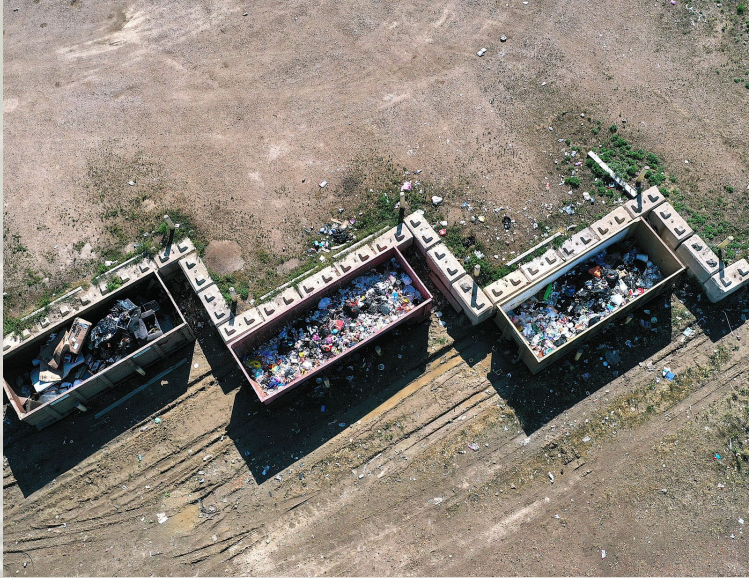


Solid Waste Management Services for First Nations in Saskatchewan

Saskatchewan Aboriginal Land Technicians

What is a Solid Waste Management Community Navigator?

- Provide strategic guidance and creative solutions for waste diversion
- Support ongoing waste management and recycling programs
- Answer questions on waste reduction and recycling options
- Connect communities with appropriate organizations for detailed support
- Document area with pictures and drone footage of community waste programs



What is Solid Waste

Solid waste refers to any non-liquid, non-gaseous material that is discarded because it is no longer useful or wanted in each community. It includes:

- Household waste
- Industrial waste
- Commercial waste
- Construction debris



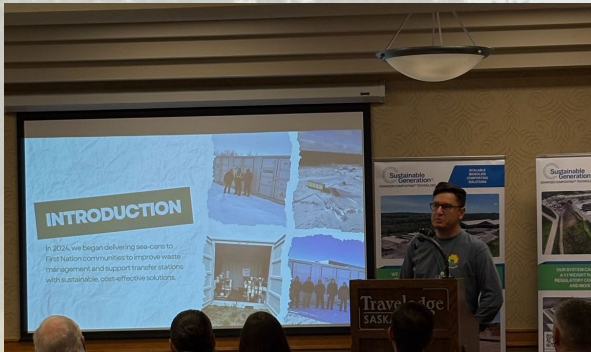
Why Proper Waste Management Matters

- Environmental protection
- Public health
- Resource conservation
- Reduce climate impact
- Allows the ability for First Nations to control and manage waste within their respective communities

Why This Role Matters

- Protects the environment
- Empowers First Nation communities and waste operators
- Improves public health
- Builds capacity
- Ensures sustainability of waste programs
- Promote growth and training within Saskatchewan First Nations





Operator Training Partnership with

IZWTAG

- Based off existing modules developed by IZWTAG, SALT developed an introductory course for waste operators, such as site management, safety, compliance, and procedures
- Our goal is to deliver this training to First Nation waste operators in Saskatchewan, supporting capacity building and best practices in waste management

HHW/Seacan project



- Secure temporary storage for household hazardous waste
- Durable and cost-effective
- 1,100 tank for used oil
- Solids bay (batteries, lightbulbs, etc.)
- Liquids bay (paint, household cleaners, etc.)
- Electronics (TVs, computers, cell phones, etc.)

First Nation Communities with

Sea Cans

Muskoday
Thunderchild
Cowessess
Fishing Lake
Carry the Kettle
Deschambault
Ochapowace
Peter Ballantyne
Onion Lake
Zagime Anishnabek
Mosquito, Grizzly Bear's Head, Lean Man

Patuanak
English River
Ahtahkakoop
One Arrow
Muskeg Lake
Mistawasis
Sweetgrass
Big River
Wahpeton
Red Pheasant
Flying Dust

Kahkewistahaw
Keeseekoose
Pelican Lake
Pheasant Rump
Witchehan Lake
Pasqua
Little Pine
Saulteaux
Poundmaker
Montreal Lake (Landfill/Community)
Moosomin
Yellowquill

First Nations Supported with SALT Sea-can Infrastructure

First Nation Status

- Indian Act
 - First Nation (54*)

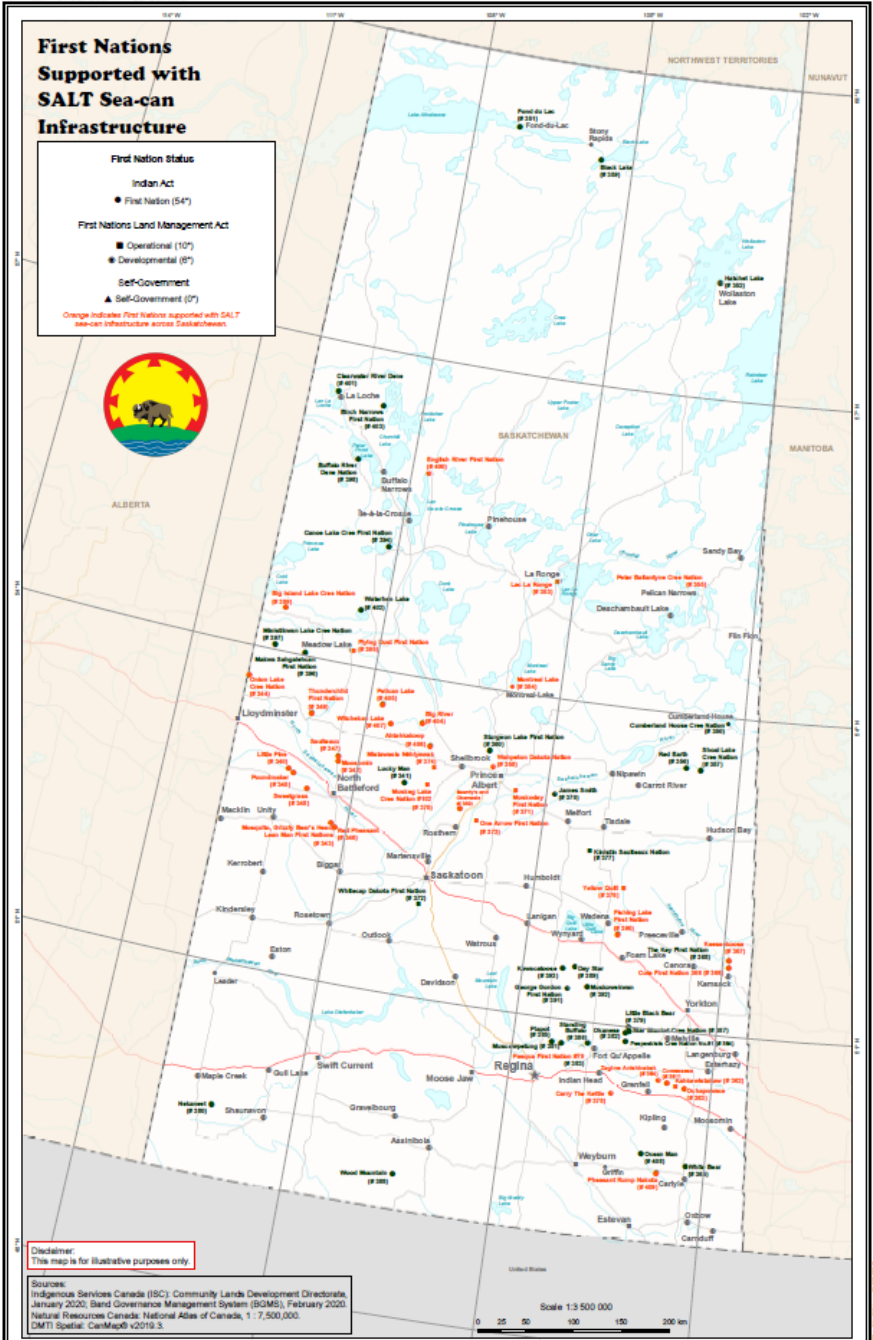
First Nations Land Management Act

- Operational (10*)
- Developmental (8*)

Self-Government

- Self-Government (0*)

Orange indicates First Nations supported with SALT sea-can infrastructure across Saskatchewan.



Disclaimer:
This map is for illustrative purposes only.

Sources:
Indigenous Services Canada (ISC): Community Lands Development Directorate, January 2020; Band Governance Management System (BGMS), February 2020; Natural Resources Canada: National Atlas of Canada, 1:7,500,000; CMTI Spatial: CanMap® v2019.5.

Scale 1:3,500,000
0 25 50 100 150 200 km



Specialized Services

Refrigerant Handling (Freon Removal)

- Safe removal and recovery of refrigerants from appliances
- Ensures compliance with environmental regulations and prevents harmful emissions
- Performed by certified technicians using approved recovery equipment

Waste Operator Training

- Focuses on operational best practices, safety, and compliance
- Builds capacity for managing transfer stations and solid waste programs effectively



Benefits of Core Facilities for First Nation Waste Transfer Station



Vehicle Storage Building

- Protects waste vehicles from the elements
- Heated facility for operators
- Space for circle checks and maintenance
- Ensures vehicles are ready for hauling
- Improved safety and compliance



Attendant Sheds

- Safe, heated shelter for staff
- Central hub for check-in and record keeping
- Improved customer service
- Enhanced security and oversight
- Storage for PPE and supplies





Empowering Communities Through Waste Education & Engagement

Kori Wuttunee

Specialist – Solid Waste Management, Recycling,
and Public Education

Waste Education

Overview: Sessions

Delivered educational sessions on waste, recycling, and composting in First Nation schools across Saskatchewan

Impact:

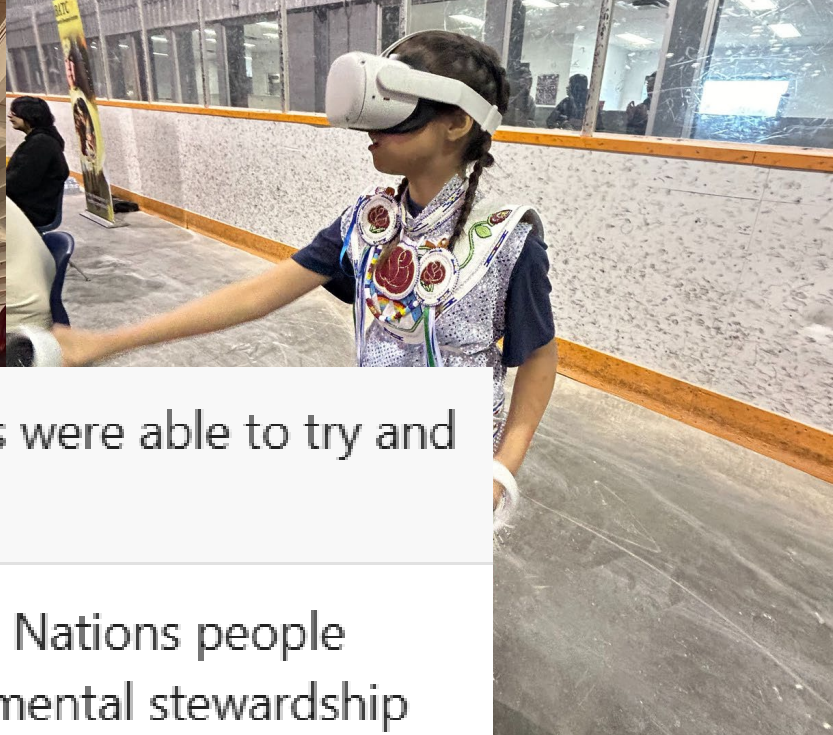
- Increased awareness of sustainable waste practices
- Engaged youth through interactive and culturally relevant content



3R VR QUEST: PROTECTORS OF OUR LAND



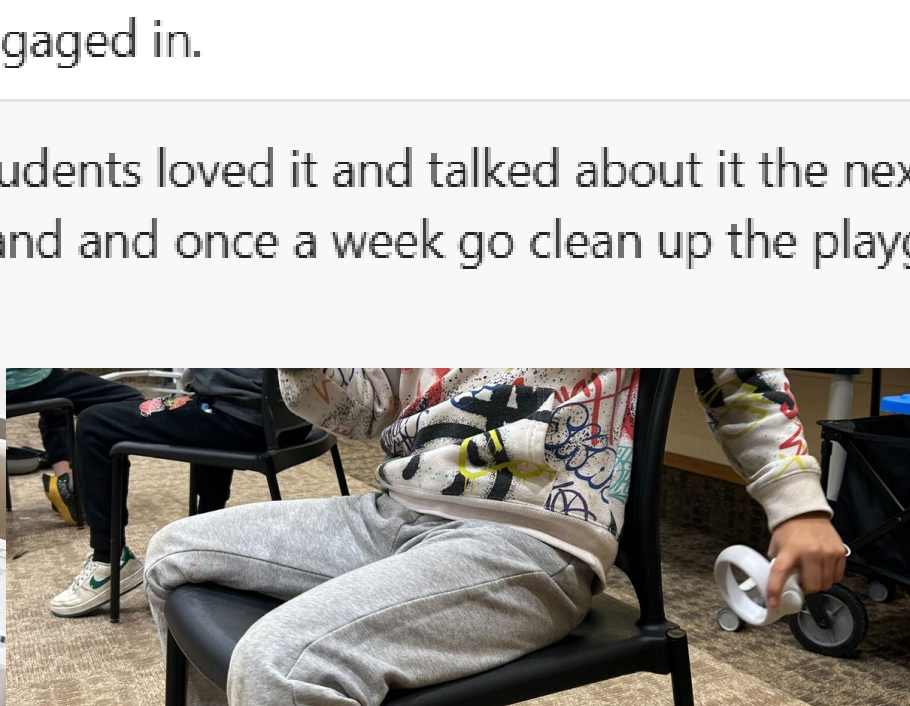
SASKATCHEWAN ABORIGINAL LAND TECHNICIANS



Love the interactive game, children who do not own Meta quests were able to try and play and learn in a postive way!

It was a very engaging presentation and very happy to have First Nations people delivering the presentation. It compliments all the other environmental stewardship activities my class is engaged in.

It was awesome! My students loved it and talked about it the next day! We are going to be Keepers of the Land and once a week go clean up the playground. Thank u again!





Treaty Day Engagement

Participated in multiple Treaty Day celebrations during the summer

SALT Info Booths:

- Shared resources on waste reduction and land stewardship
- Engaged with community members of all ages





Recycling

Saskatchewan Aboriginal Land Technicians

Waste Management

Curriculum Development

Curriculum Focus:

- Waste Reduction
- Recycling Best Practices
- Composting Education

This curriculum features easy-to-follow lesson plans aligned with Saskatchewan curricula guidelines. It integrates Indigenous knowledge and cultural

Bird Feeder

Subject: Science

Time Allotted: 20 Minutes

Unit: Waste Reduction

Developed By: Kori Wuttunee

<p>PGP Target 1.4 demonstrates a commitment to service and the capacity to be reflective, lifelong learners, and inquirers.</p>	<p>Student Outcome and Indicators OM 1.2 – Examine methods of altering and combining materials to create objects that meet student and/or teacher-specified criteria. (e) Follow a simple procedure to make a useful object from recyclable materials.</p>
<p>Assessment FOR Learning (formative): Assess the students during the learning to help determine next steps. Students will follow a simple procedure to make a bird feeder from recyclable materials.</p>	<p>Assessment OF Learning (summative): Assess the students after learning to evaluate what they have learned. Students will contribute to classroom discussion as they reflect on the importance of recyclable materials.</p>

<p>Broad Areas of Learning Engaged Citizens: Students will explore connections between science and the environment. Students have the opportunity to contribute positively to environmental sustainability.</p>	<p>Cross Curricular Competencies Developing Social Responsibility: Students will achieve moral reasoning processes and take social action as they examine the impact of scientific understanding on society.</p>
<p>FNMI Content – Cree Language Bird – piyesis Eat – miciso Land – askiy Thankful – ninanaskomon</p>	<p>Materials</p> <ul style="list-style-type: none"> • Smartboard • Video (https://www.youtube.com/watch?v=sKlyeeCBL-w) • Plate/Paper Towel • Birdseeds • WOW Butter • Toilet Paper Roll • String
<p>Key Essential Questions</p> <ul style="list-style-type: none"> • What is recycling? • How can I recycle? • What are recyclable objects? • Why is it important to reduce, reuse, and recycle? 	<p>Adaptations/Differentiations</p> <ul style="list-style-type: none"> • One-on-one support – assist with the bird feeder • Brainstorm other recyclable materials that can be used

Introduction – Anticipatory

1. Play video – Make Your Own Recycled Bird Feeders
2. Overview of video – Dino will teach students about birds and how they can recycle objects around the house to make bird feeders!

Main Procedures

1. Pour birdseed on a plate/paper towel
2. Spread WOW Butter evenly on a toilet paper roll across the birdseed until it's well covered
3. Roll the toilet paper roll across the birdseed until it's well covered
4. Pull the string through the middle of the roll and tie

Closure

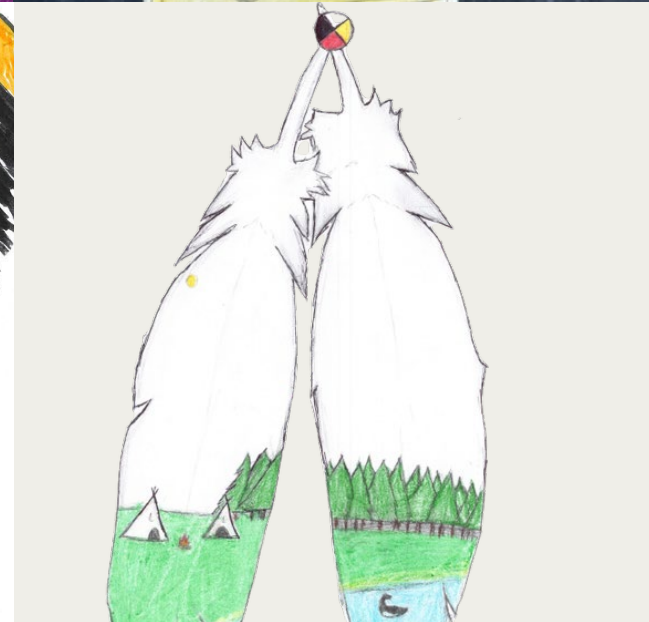
1. Allow bird feeder to dry and clean area
2. Class discussion: "How can we recycle?" and "Why is it important to reduce, reuse, and recycle?"



We Are the Land Art

Calendar Contest

- **Theme:** Environmental artwork
- **Participation:**
 - Grades 5-12
 - One school per First Nation



4th Annual Contest

Free Programming for First Nation Communities

Accessibility

- All services are free of charge to First Nation communities

Available Offerings

- VR game experiences brought directly to schools and events
- Waste management curricula
- We Are the Land Art Calendar Contest

Reflections & Impact

- Community Engagement: Strengthened relationships and built environmental awareness
- Youth Empowerment: Inspired the current and next generation of land protectors

Our Commitment as a Solid Waste Team

- Building strong partnerships
 - Ongoing collaboration with First Nation communities to support sustainable waste solutions
- Fostering relationships through service
 - Maintaining and strengthening connections by providing consistent solid waste support
- Driving waste management success
 - Helping communities achieve their waste management goals through guidance and resources

Waste
Management
Toolkit
for Saskatchewan
First Nations
Communities

A circular logo with a pink border. Inside, a yellow sun with pink rays is at the top. Below the sun is a grey cow silhouette standing on a green grassy field. At the bottom of the circle are blue wavy lines representing water.

Solid Waste System Operations & Maintenance Tool



O&M Calculator

- Without proper budgets for operations and maintenance, a solid waste system can fall apart weeks after implementation
- Important capital investments into infrastructure, such as transfer stations, depend on a well-thought-out operational budget to remain functional
- It is important to plan for all waste streams the transfer station is managing (e.g., garbage, recycling, organics, bulky waste, etc.)
- GHD, IZWTAG, and SALT have years of experience in assisting Nations with their individual waste systems
- From this experience, GHD was able to create an O&M calculator that is currently used in First Nations in BC and was adapted for First Nations in Saskatchewan

A circular graphic with a light yellow sun in the background, a grey cow silhouette in the middle ground, a green grassy field at the bottom, and blue wavy lines representing water at the very bottom. The sun is surrounded by a ring of red triangles pointing outwards. The entire graphic is centered on a white background.

O&M Microsoft Forms Survey

SK O&M Calculator

This survey consists of nine sections and will take approximately 30-45 minutes to complete. Once completed, the outputs will be provided to you via email.

* Required

General Information

1

Please enter your email address *

If listing multiple, separate emails using semicolons and spaces ie. person1@gmail.com; person2@gmail.com

Enter your answer

2

What is your community's name? *

Enter your answer

3

What is your community's address? *

Enter your answer

4

What is your community's population? *

The value must be a number

5

How many homes are in your community? *

The value must be a number

6

How many community buildings are there? *

The value must be a number

7

Are the homes in your community located: *

- Close together
- Close together, in clusters
- Far apart

8

Are the access roads to the community gravel or paved? *

- Gravel
- Paved
- Mix of both

Does your community have a First Nations-operated facility for storing recyclables? *

- Yes, there is a recycling facility/depot operated by my First Nation
- No, recyclables are taken directly to a depot/transfer station not operated by my First Nation

11

How are your recyclables managed? *

If recyclables are managed both ways, select collected at each house.

- Collected at each house (eg. roadside collection)
- Drop-off at the municipal depot

12

Are recyclables collected by the First Nations O&M department or contractors? *

- First Nations O&M department
- Contractors

13

How often are recyclables collected? *

Once per week

14

How many houses receive recycling pick up in the Community? (Any houses outside of this total are assumed to self-haul) *

200

15

How often are recyclables transported to the community depot? *

Once per week

16

Distance between the community and community depot for unloading recyclables (roundtrip in km). *

If unknown, use Google Maps (<https://maps.google.ca>) to provide estimate.

If the community depot is within the community, enter the distance from the farthest home to the depot.

5

17

Travel time between the community and community depot for unloading recyclables (roundtrip in mins). *

If unknown, use Google Maps (<https://maps.google.ca>) to provide estimate.

If the community depot is within the community, enter the travel time from the farthest home to the depot.

15

18

How are the collected recyclables transferred to the recycling facility? *

If recyclables are transferred by both First Nations O&M department and contractors, select transported by First Nations O&M department.

18

How are the collected recyclables transferred to the recycling facility? *

If recyclables are transferred by both First Nations O&M department and contractors, select transported by First Nations O&M department.

Transported by First Nations O&M department

Transported by contractors

19

Enter the annual cost for the contracted recycling hauling service. *

The value must be a number

Back

Next

Never give out your password. [Report abuse](#)

Garbage Program

Garbage described here refers to household waste that is not recyclable or organic (food/yard waste).

10

Does your community have a garbage collection program? *

Yes

No

11

Does your community have a First Nations-operated facility for storing garbage? *

Yes, there is a community depot/transfer station/landfill operated by my First Nation

No, garbage is taken directly to a depot/transfer station/landfill not operated by my First Nation

12

How is your garbage managed? *

If a mix of both, select collected at each house.

Collected at each house (eg. roadside collection)

Drop-off at the municipal depot/transfer station/landfill

Back

Next

Organics Program

Organic waste described in this section refers to biodegradable and compostable waste, which can include: food scraps, yard and garden trimmings, food-soiled paper products and biosolids.



11

Does your community have an organics collection program? *

Yes

No

12

Does your community have a First Nations-operated facility for storing compost/organics? *

Composting operations can include Jora composters, windrows, piles, industrial composters, etc.

12

Does your community have a First Nations-operated facility for storing compost/organics? *

Composting operations can include Jora composters, windrows, piles, industrial composters, etc.

- Yes, there is a community depot (operated by my First Nation) - storage only, organics are not composted on-site
- Yes, there is a community depot (operated by my First Nation) - with on-site composting operations
- No, organics are taken directly to a municipal depot/composting facility (not operated by my First Nation)

13

How are your organics managed? *

If managed both ways, select collected at each house.

- Collected at each house (e.g. roadside collection)
- Drop-off at the community depot

14

Are the organics collected by the First Nations O&M department or contractors? *

- Twice per day
- Once per day
- Three times per week
- Twice per week
- ✓ Once per week
- Once every two weeks
- Once per month
- Four times per year

Once per week

17

How often are organics transported to the composting facility? *

Once per week

18

Distance between the community and composting facility for unloading organics (roundtrip in km). *

If unknown, use Google Maps (<https://maps.google.ca>) to provide estimate.

If the composting facility is within the community, enter the distance from the farthest home to the facility.

10

19

Travel time between the community and composting facility for unloading organics (roundtrip in mins). *

If unknown, use Google Maps (<https://maps.google.ca>) to provide estimate.

If the composting facility is within the community, enter the travel time from the farthest home to the facility.

20

20

How many additional hours do operators spend on composting operations on top of regular waste and recycling tasks (hours per week)? *

Enter "0" if not applicable or no additional hours are required.

8

Bulky Waste Program

Bulky waste described in this section refers to waste that is not accepted in the regular recycling collection program. This may include: discarded furniture (couches, recliners, tables, mattresses, etc.), large appliances (refrigerators, ovens, TVs, etc.), plumbing fixtures (bathtubs, toilets, sinks, etc.), and containers that hold hazardous waste (anti-freeze, oil cans, used batteries, etc.).

✓ Electronics



✓ Other Recyclables (Empty Containers Only)



✓ Appliances & Power Tools



Domestic Use Pesticides

Label must have
PCP# and poison
symbol



12

Does your community have a bulky waste collection program? *

Yes

No

Back

Next

13

Does your community have product stewardship program(s) in place? *

Yes

No

14

Which of the following product stewards does your community work with?

Select all that apply.

Oil recycling

Tire recycling

Major appliance recycling

Electronic products recycling

Product Care recycling (paint and household hazardous waste)

Canadian Battery Association

Electrical Equipment Manufacturers Association

ElectroRecycle Small Appliance Recycling Program

Health Products Stewardship Association

Outdoor Power Equipment Institute of Canada

Recycle My Cell

Thermostat Recovery Program (TRP)

The TELUS Return and Recycle Program

Other

15

Are **recycling carts** used in your community? *



Yes

No

16

Are **recycling totes** used in your community? *



Yes

No

19

Are **waste carts** used in your community? *



Yes, **regular** waste carts are used

Yes, **bear resistant** waste carts are used

No

20

Are **compost buckets with spin lids** used in your community? *



Yes

No

Local Transfer Station/Building Operation & Maintenance

For the questions below, if your community has more than one transfer station, enter the total values for all transfer stations.

22

Does your community have a local community depot/transfer station? *

Yes

No

23

Enter the total number of operators present during the opening hours of the depot/transfer station. *

1

24

How many hours a week is your community's depot/transfer station open to the public? *

If more than one depot/transfer station is open to the public, enter the value for the depot/transfer station with **longer opening hours**.

20

25

How many hours a week is an attendant at your community's transfer station when it is not open to the public? *

If the depot/transfer station is not open to the public, enter total weekly attendant hours.
Hours spent on burning wood should be included in this value.

5

29

Are there electric fences at the depot/transfer station? *

Yes

No

30

Enter the number of **fabric shelters** at the depot/transfer station *

Enter "0" if not applicable.



The value must be a number

31

Enter the number of **sea-cans** at the depot/transfer station *

Enter "0" if not applicable.



The value must be a number

33

Enter the number of **roll-off bins** at the depot/transfer station. *

Enter "0" if not applicable.



The value must be a number

34

Enter the number of **compactor bins** at the depot/transfer station. *

Enter "0" if not applicable.



The value must be a number

35

Is a **forklift** used in the depot/transfer station? *



Is a **skidsteer** used in the depot/transfer station? *



Yes

No

38

How many **vertical baler(s)** are used at the depot/transfer station? *



The value must be a number

39

How many **horizontal baler(s)** are used at the depot/transfer station? *





See email below

From: Griffin Swanson <Griffin.Swanson@ghd.com>

Sent: Thursday, May 8, 2025 5:36 PM

To: Tessa Fauth <tessa.fauth@ghd.com>

Cc: Griffin Swanson <griffin.swanson@ghd.com>

Subject: SK O&M Calculator Results

Thank you for completing the SK O&M Calculator Form.

We have processed your response and summarized estimated annual O&M costs in the attached excel sheet. See the cover page detailing how to navigate the excel file, and options you may modify to further refine the estimate.

***When opening the excel, you may receive a security warning. This will not affect the workbook or presented results regardless of if you enable the content or ignore / reject the warning.

Thanks,

A circular logo featuring a central yellow sun with a pink border of triangles. Below the sun is a green field and blue wavy water. A grey silhouette of a cow stands in the field. A white rectangular box with a thin black border is centered horizontally across the logo.

O&M Calculator: Excel Tool

		Local Operation				
	Type of Operation	Number of Operators	Time Spent (hr/operator)	Trip Cost (\$/trip)	Annual Frequency (trip/yr)	Annual Cost (\$/yr)
Recycling	Recycling Collection - Material Collection	1	16.00	\$ 400.00	52	\$ 20,800.00
	Recycling Unloading	1	1.00	\$ 25.00	52	\$ 1,300.00
	Recycling Hauling - To Transfer Station or Landfill	1	0.80	\$ 20.00	52	\$ 1,040.00
	Recycling Hauling - From TS to Final Destination	1	3.90	\$ 97.50	12	\$ 1,170.00
Garbage	Garbage Collection - Material Collection	1	9.00	\$ 225.00	52	\$ 11,700.00
	Garbage Unloading	1	1.00	\$ 25.00	52	\$ 1,300.00
	Garbage Hauling - To Transfer Station or Landfill	1	1.00	\$ 25.00	52	\$ 1,300.00
	Garbage Hauling - From TS to Final Destination	1	0.00	\$ -	0	\$ -
Organics	Organics Collection - Material Collection	1	7.00	\$ 175.00	52	\$ 9,100.00
	Organics Hauling - To Transfer Station or Landfill	1	0.00	\$ -	52	\$ -
	Organics Unloading	1	1.00	\$ 25.00	52	\$ 1,300.00
	Organics Hauling - From TS to Final Destination	1	2.80	\$ 70.00	0	\$ -
	Organics Treatment - Onsite Composting Operations		8.00	\$ 200.00	52	\$ 10,400.00
Bulky Waste	Bulky Waste Collection - Material Collection	1	23.50	\$ 587.50	12	\$ 7,050.00
	Bulky Waste Unloading	1	1.00	\$ 25.00	12	\$ 300.00
	Bulky Waste Hauling - To Transfer Station or Landfill	1	0.80	\$ 20.00	12	\$ 240.00
	Bulky Waste Hauling - From TS to Final Destination	1	0.00	\$ -	0	\$ -
Product Stewardship	Product Stewardship Program		0.00	\$ -	52	\$ -
Education & Training	Waste Champion Wage & Renewal of Training Materials			\$ 4,136.00	1	\$ 4,136.00
Attendant Hours	Transfer Station Attendants	1	27	\$ 675.00	52	\$ 35,100.00

- Operator time required for each waste stream
- This includes household pickup, transport time for waste hauling, unloading/sorting, and transfer station operations
- Excel can be easily edited by the Nation (for example, the number of operators per task)

Consumable Costs

Consumable		Unit Cost (\$/unit)	Annual Frequency	Annual Cost (\$/yr)
Bag Buddies		\$ -	1	\$ -
Recycling Carts		\$ 3,465.00	1	\$ 3,465.00
Recycling Totes		\$ -	1	\$ -
Recycling Bags		\$ 341.19	1	\$ 341.19
Recycling Megabags		\$ 3,500.00	1	\$ 3,500.00
Waste Carts		\$ 5,313.00	1	\$ 5,313.00
Garbage Bags		\$ 2,431.00	1	\$ 2,431.00
Clear Bags		\$ 3,049.80	1	\$ 3,049.80
Compost Buckets		\$ -	1	\$ -
Compost Carts		\$ 1,155.00	1	\$ 1,155.00
Jora Composters		\$ 2,400.00	1	\$ 2,400.00
Wood Chips		\$ 2,880.00	1	\$ 2,880.00
Spill Kit		\$ 900.00	1	\$ 900.00
Shipping		\$ 2,377.00	1	\$ 2,377.00

Maintenance Costs

Maintenance Costs		Distance Travelled (km/trip)	Trip Cost (\$/trip)	Annual Frequency (trip/yr)	Annual Cost (\$/yr)
Vehicles	Recycling - Fuel & Maintenance - Collection	6.93	\$ 13.86	52	\$ 720.72
	Recycling - Fuel & Maintenance - While vehicle is idling during collection stops		\$ 43.20	52	\$ 2,246.40
	Recycling - Fuel & Maintenance - To Transfer Station	10	\$ 20.00	52	\$ 1,040.00
	Recycling - Fuel & Maintenance - From TS to Final Destination	60	\$ 120.00	12	\$ 1,440.00
	Garbage - Fuel & Maintenance - Collection	6.93	\$ 13.86	52	\$ 720.72
	Garbage - Fuel & Maintenance - While vehicle is idling during collection stops		\$ 22.40	52	\$ 1,164.80
	Garbage - Fuel & Maintenance - To Transfer Station	0	\$ -	52	\$ -
	Garbage - Fuel & Maintenance - From TS to Final Destination	0	\$ -	0	\$ -
	Organics - Fuel & Maintenance - Collection	6.93	\$ 13.86	52	\$ 720.72
	Organics - Fuel & Maintenance - While vehicle is idling during collection stops		\$ 15.50	52	\$ 806.00
	Organics - Fuel & Maintenance - To Transfer Station	0	\$ -	52	\$ -
	Organics - Fuel & Maintenance - From TS to Final Destination	10	\$ 20.00	0	\$ -
	Bulky Waste - Fuel & Maintenance - Collection	6.93	\$ 13.86	12	\$ 166.32
	Bulky Waste - Fuel & Maintenance - While vehicle is idling during collection stops		\$ 68.90	12	\$ 826.80
	Bulky Waste - Fuel & Maintenance - To Transfer Station	0	\$ -	12	\$ -
	Bulky Waste - Fuel & Maintenance - From TS to Final Destination	0	\$ -	0	\$ -
	Additional Allowance for Travelling on Gravel Roads	Paved		0%	1

- Costs for annual replacement of damaged household equipment and consumables
- Vehicle fuel and maintenance

Building Maintenance	Building Maintenance	Number of Units	Unit Cost (\$/unit)	Annual Frequency	Annual Cost (\$/yr)
General Building Operations	Electricity - Power & Lighting	1	\$ 1,000.00	1	\$ 1,000.00
General Building Maintenance	Snow Removal & Grading - based on m ²	5000	\$ 0.30	1	\$ 1,500.00
	Gate Replacement	2	\$ 500.00	1	\$ 1,000.00
	Fence Maintenance/Repairs - based on m	283	\$ 5.00	1	\$ 1,414.21
	Electric Fencing - based on m	283	\$ 2.00	1	\$ 565.69
Building Types	Buildings - based on m ²	400	\$ 31.12	1	\$ 12,448.00
	Seacan	3	\$ 381.25	1	\$ 1,143.75
	Site Office	1	\$ 533.75	1	\$ 533.75
	Megabag Shelter	0	\$ 30.00	1	\$ -
	Roll-Off Bins	4	\$ 500.00	1	\$ 2,000.00
	6-yard bins (Recycling)	4	\$ 200.00	1	\$ 800.00
	Fabric Shelter	0	\$ 2,785.24	1	\$ -
	Compactor Bin	1	\$ 1,200.00	1	\$ 1,200.00
				Subtotal	\$ 23,605.40
Equipment Maintenance	Equipment Maintenance	Number of Units	Unit Cost (\$/unit)	Annual Frequency	Annual Cost (\$/yr)
	Forklift	0	\$ 1,800.00	1	\$ -
	Wood Chipper	1	\$ 3,600.00	1	\$ 3,600.00
	Skidsteer	1	\$ 1,800.00	1	\$ 1,800.00
	Loader	1	\$ 2,000.00	1	\$ 2,000.00
	Vertical Baler	1	\$ 2,000.00	1	\$ 2,000.00
	Horizontal Baler	0	\$ 2,000.00	1	\$ -
				Subtotal	\$ 9,400.00

- Transfer station and equipment maintenance costs
- Additional equipment costs can be easily added if the list is not comprehensive

Operational Costs

		Contracted Operations	
	Type of Operation	Annual Cost (\$/yr)	Monthly Cost (\$/month)
Recycling	Recycling Collection - Material Collection	\$ -	\$ -
	Recycling Unloading		
	Recycling Hauling - To Transfer Station or Landfill		
	Recycling Hauling - From TS to Final Destination	\$ -	\$ -
Garbage	Garbage Collection - Material Collection	\$ -	\$ -
	Garbage Unloading		
	Garbage Hauling - To Transfer Station or Landfill		
	Garbage Hauling - From TS to Final Destination	\$ 80,000.00	\$ 6,666.67
Organics	Organics Collection - Material Collection	\$ -	\$ -
	Organics Hauling - To Transfer Station or Landfill	\$ -	\$ -
	Organics Unloading		
	Organics Hauling - From TS to Final Destination		
	Organics Treatment - Onsite Composting Operations		\$ -
Bulky Waste	Bulky Waste Collection - Material Collection	\$ -	\$ -
	Bulky Waste Unloading		
	Bulky Waste Hauling - To Transfer Station or Landfill		
	Bulky Waste Hauling - From TS to Final Destination	\$ 15,000.00	\$ 1,250.00
Product Stewardship	Product Stewardship Program		
Education & Training	Waste Champion Wage & Renewal of Training Materials		
Attendant Hours	Transfer Station Attendants		

- Annual contractor costs obtained via quote or past invoices

Results

	Annual Cost (\$/yr)	Monthly Cost (\$/month)
Operations+Consumables	\$ 134,047.99	\$ 11,170.67
Contractor	\$ 40,000.00	\$ 3,333.33
Maintenance	\$ 42,857.88	\$ 3,571.49
Total O&M Cost	\$ 216,905.87	\$ 18,075.49

- Total costs show both Nation operations and contracted operations
- Operations is a product of operator time/salary
- Maintenance covers transfer station maintenance, vehicle maintenance, and annual replacement costs for household equipment (e.g., recycling carts)
- Closely matches the nation's actual costs

O&M Costs from Previous ISC Calculator

2024/25 Household Waste O&M Funding = Environment Funding + Capital Funding	\$137,367
Capital Funding = Capital MTSA + Capital Asset O&M	\$42,600
Environment Funding (Financial Code Q3WI) = (Collection + Disposal + Transportation + Attendant Salary) - Capital MTSA	\$94,767

- This is the amount ISC is currently funding for the same community
- ISC is currently underfunding the community by over \$79,000 each year

A circular logo with a light green background. At the top is a yellow sun with a pink border and pink triangular rays. Below the sun is a light green field. At the bottom is a blue body of water with white wavy lines. In the center of the field is a grey bison silhouette.

Questions?

E: swmanagement@salt-sk.ca

C: (306) 382-6283