First Nation Showcase

Solid Waste Management Initiatives
Prairie Region

FIRST NATIONS LAND MANAGEMENT RESOURCE CENTRE

Training, Mentorship & Professional Development

May 26-27, 2026

Presenters

Dwayne Gaudry
One Arrow First Nation

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Councillor Louis LeDoux
Mistawasis Nêhiyawak

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ONE ARROW FIRST NATION COMPOST PROJECT

May 2026

INDIGENOUS COMMUNITIES ALREADY POSSESS KNOWLEDGE, LEADERSHIP, AND VISION. PARTNERSHIPS WORKS BEST WHEN INSTITUTIONS SUPPORT COMMUNITY-LED PRIORITIES INSTEAD OF IMPOSING OUTSIDE MODELS.

Forward-looking and grounded.

WHEN CHILDREN LEARN STEWARDSHIP EARLY, COMMUNITIES BUILD LONG-TERM SUSTAINABILITY INSTEAD OF SHORT-TERM CLEANUP.

Infrastructure changes systems…education changes generations.

OVER TIME, THIS CREATES TRUST. AND TRUST CREATES INFLUENCE. OFTEN PEOPLE WAIT TO BE CALLED LEADERS. OTHERS SIMPLY LEAD BECAUSE THE WORK NEEDS TO BE DONE.

Pilot projects should build capacity and not permanent dependence.

STRONG COMMUNITIES ARE BUILT WHEN PEOPLE REGAIN CONNECTION TO LAND, PURPOSE, RESPONSIBILITY AND OPPORTUNITY.

Thank you and have a One Arrow Day.

Strengthening Environmental Governance Through Industrial Waste Management

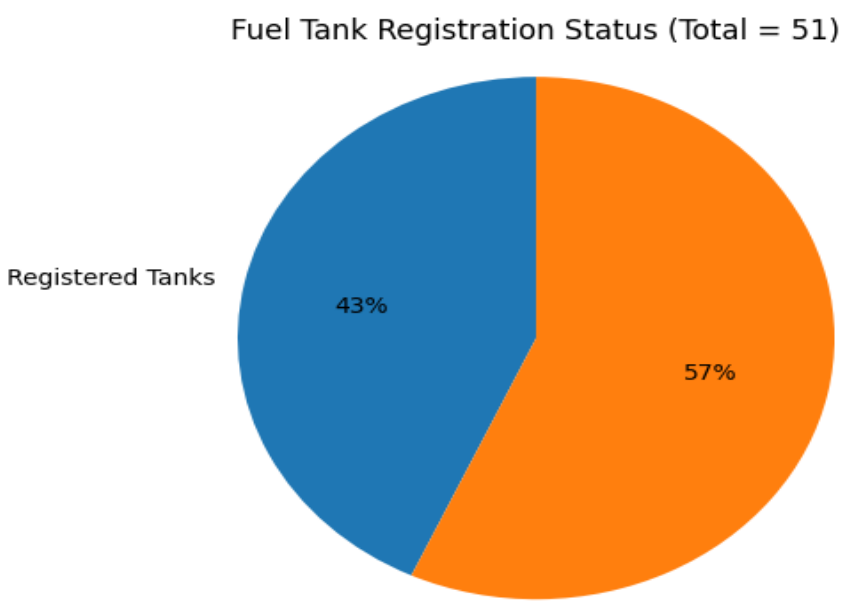
Dane Holz – Environmental Compliance Specialist
Fort McKay First Nation
Fort McKay, Alberta

Fort McKay's Industrial Park Challenges

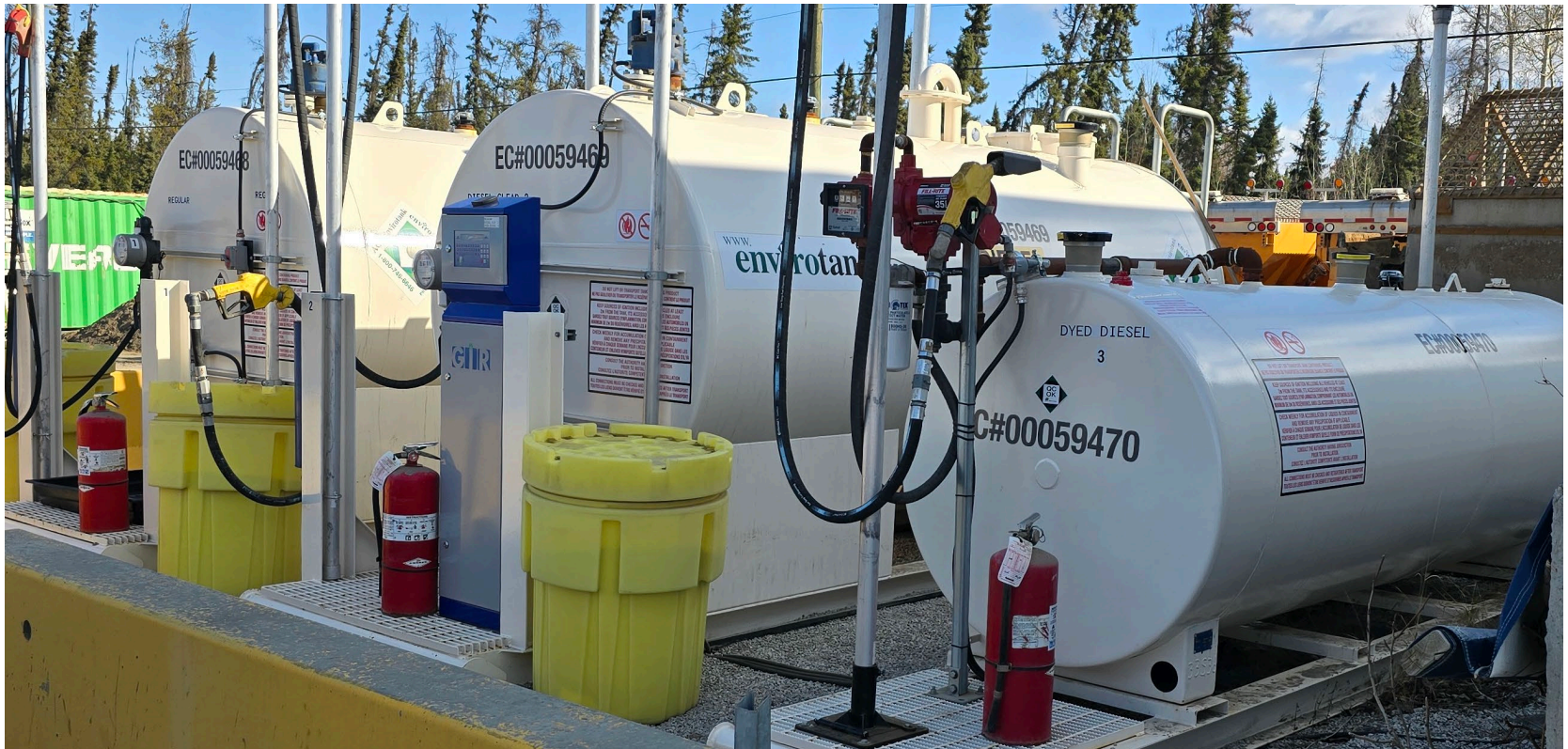
- Industrial waste-generating operations on reserve lands
- Federal regulations apply – but enforcement is unclear
- Tenants often don't know the which regulations apply to them
- When spills happen, the Nation holds the environmental and reputational risks

Key Challenge: Compliance is often reactive instead of preventative

Petroleum Storage Tanks



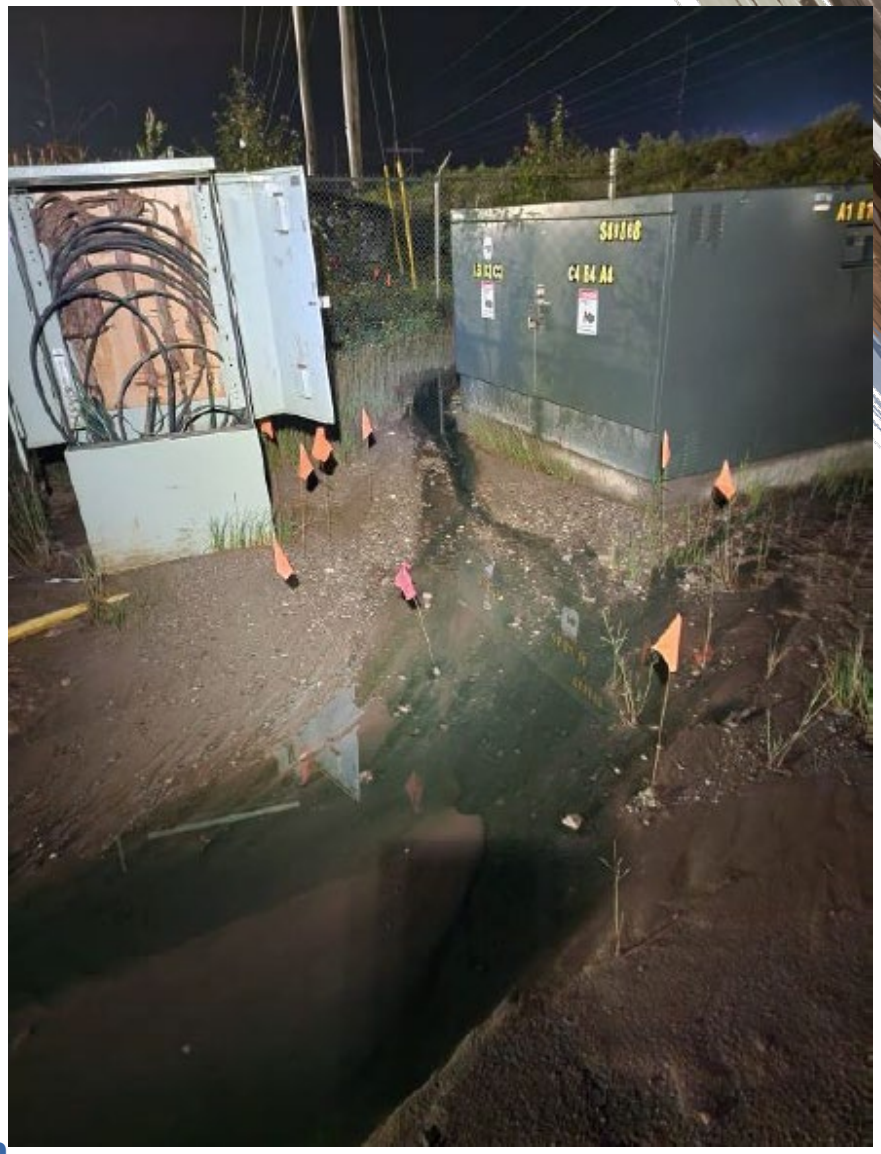
- Feds and Nations are not aware of what exists on their lands
- 51 storage tanks identified on reserve lands
- Many tanks were not federally registered
- Registration and inspections create accountability



Hydraulic Oil Spill – Case Study

Spill Summary

- 371.5 L of hydraulic Oil Released
- Spill caused by bypassed safety measures



What Failed?

- safety measures bypassed
- contamination migrated ~300m
- no immediate detection
- spill entered drainage system

Remediation & Regulatory Challenges

What worked

- Lease language created leverage
- Legal counsel established expectations
- Agricultural Tier 1 guidelines applied

Challenges

- Delays in reporting / Partial reporting
- Tenant controlled consultant reporting
- Ongoing follow-up required

Testing Failures – What We Found

TABLE 2: Laboratory Water Analytical Results - Petroleum Hydrocarbons
Client:
Site Location:
Project Number:

Sample ID	Date (d-m-y)	Laboratory ID	Benzene	Toluene	Ethylbenzene	Xylenes	F1 (C_6-C_{10})	F1-BTEX	F2 (C_{10}-C_{16})
Tier 1 Guidelines[a] - Commercial/Industrial Land Use, Fine Soil			0.005	0.024	0.0016	0.02	NG	2.2	1.1
Tier 1 Guidelines[a] - Commercial/Industrial Land Use, Coarse Soil			0.005	0.021	0.0016	0.02	NG	2.2	1.1
SW25-1	[redacted]	FC2501792-017	<0.50	<0.50	<0.50	<0.50	<100	<100	<100
SW25-2		FC2501792-018	<0.50	<0.50	<0.50	<0.50	<100	<100	<100
SW25-3		FC2501792-019	<0.50	<0.50	<0.50	<0.50	<100	<100	<100

Notes:
- All concentrations are reported in mg/L unless specified
--- - Analysis not conducted or not applicable
NG - Not specified
Value - Parameter exceeds applicable regulatory guideline value.
[a] Alberta Tier 1 Soil and Groundwater Remediation Guidelines (AEPA, 2024) for industrial land use
[b] Environmental Quality Guidelines For Alberta Surface Waters (AEP, 2018)

TABLE 4: Laboratory Soil Analytical Results - Petroleum Hydrocarbons and Particle Size

Sample Area	Sample Name	Date (d-m-y)	Laboratory ID	Depth (m bg)	Surface Soil / Subsoil	Particle Size	Soil Type	Benzene	Toluene	Ethylbenzene	Xylenes	F1 (C_6-C_{10})	F1 - BTEX	F2 (C_{10}-C_{16})	F3 (C_{16}-C_{34})	F4 (C_{34}-C_{50})	Moisture (%)
Tier 1 Guidelines[a] - Industrial Land Use					Surface Soil	<50% Retained	Fine	0.046	0.52	0.073	0.99	NG	320	260	2,500	6,600	---
					Subsoil	<50% Retained	Fine	0.046	0.52	0.073	0.99	NG	640	520	4,300	10,000	---
					Surface Soil	>50% Retained	Coarse	0.078	0.12	0.14	1.9	NG	270	260	1,700	3,300	---
					Subsoil	>50% Retained	Coarse	0.078	0.12	0.14	1.9	NG	440	520	3,400	6,600	---
Spill Area	SS25-1	[redacted]	FC2501792-001	0.00 - 0.10	Surface Soil			<0.0050	0.051	<0.015	<0.075	<5.0	<5.0	207	23500	7350	6.25
			FC2501792-002	0.20 - 0.30	Surface Soil	67.9	Coarse	<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	82	23900	7300	4.48
	SS25-2		FC2501792-003	0.0 - 0.10	Surface Soil			<0.0050	0.716	<0.015	<0.075	<5.0	<5.0	64	15100	4110	7.55
	SS25-3		FC2501792-004	0.0 - 0.10	Surface Soil			<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	114	3600	1260	3.36
			FC2501792-005	0.20 - 0.30	Surface Soil	77.8	Coarse	<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	80	1480	662	4.94
	SS25-4		FC2501792-006	0.0 - 0.10	Surface Soil			<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	<25	612	267	5.05
	SS25-5		FC2501792-007	0.0 - 0.10	Surface Soil	75.4	Coarse	<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	<25	2180	818	12.5
			FC2501792-008	0.20 - 0.30	Surface Soil			<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	<25	1280	455	7.23
	SS25-6		FC2501792-009	0.20 - 0.30	Surface Soil			<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	<25	221	132	12.2
	SS25-7		FC2501792-010	0.0 - 0.10	Surface Soil	95.1	Coarse	<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	<25	758	264	10.9
			FC2501792-011	0.20 - 0.30	Surface Soil			<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	<25	188	96	4.89
	SS25-8		FC2501792-012	0.20 - 0.30	Surface Soil	60.9	Coarse	<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	<25	119	74	12.8
	SS25-9		FC2501792-013	0.0 - 0.10	Surface Soil			<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	<42	1390	730	19.5
			FC2501792-014	0.20 - 0.30	Surface Soil	81.1	Coarse	<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	<38	492	288	11.2
	SS25-10		FC2501792-015	0.0 - 0.10	Surface Soil			<0.0050	<0.050	<0.015	<0.075	<5.0	<5.0	<44	1340	813	24.2

Notes:
units - All concentrations are reported in mg/kg unless indicated
--- - Not analyzed/not applicable
NG - No guideline established
[a] Alberta Tier 1 Soil and Groundwater Remediation Guidelines (AEPA, 2024); industrial land use
Surface soil guidelines are applied to samples collected from depths of 0.0 to 3.0 m bg and subsoil guidelines are applied to sample depths below 3 m bg.
Value - Parameter exceeds applicable regulatory guideline value.

Figure 2: Soil and Water Sample Locations

Legend
- Subject Site
- Soil Sampling Location (SS-x)
- Surface Water Sampling Locations (SW-x)
- Drainage Direction

What Actually Works - Strategies

Education before enforcement	• Most tenants simply don't know the rules.
Weekly visual checks	• Prevent small issues from becoming spills.
Internal tank registry	• Track tanks before incidents happen.
Strong lease language	• Use leases to establish remediation expectations early.

Key Lessons

- **Registration creates visibility**
- **Prevention is cheaper than remediation**
- **Don’t accept incomplete consultant reports**
- **Use remediation standards that reflect your nations traditional values**
- **Strong leases strengthen environmental governance**

Questions

FORT McKAY

FIRST NATION

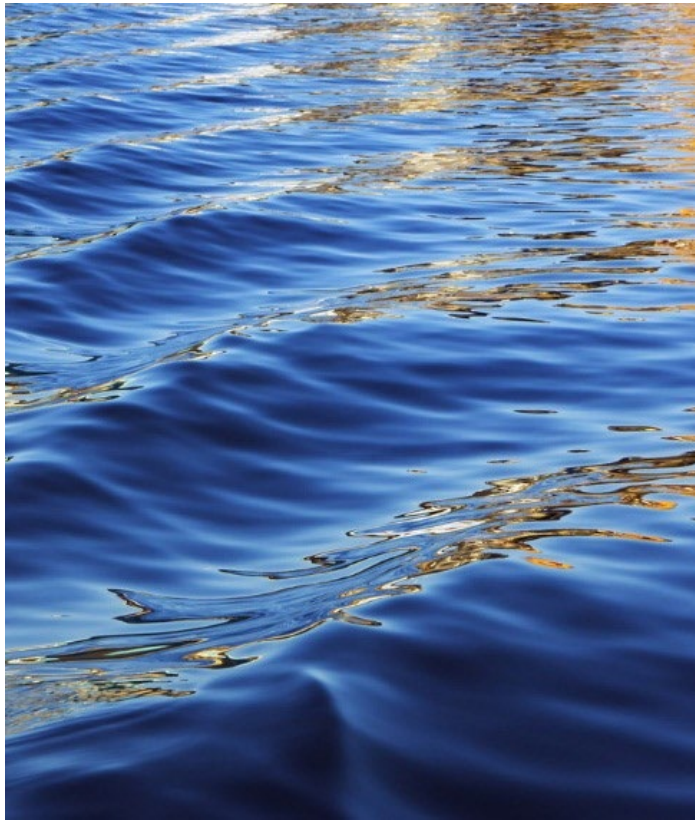
Thank you!

Mistawasis Nehiyawak TRANSFER STATION

Presented by Aaron Johnstone.

Introduction

Types of Waste and Solutions



Hazardous Waste/Materials

Identified Wastes in each C-cans storage unit:

- **Used oil & filters**
- **Liquids**
- **Solids**
- **Electronics**

GFL- Green for Life

Environmental services company specializing in diversified waste management.

- Solid Waste Management
- Recycling Services
- Liquid Waste Management
- Cleanup of Contaminates

Metal Recycling

TGM- True Green Metal

Mobile scrap metal recycling company.

- Mobile Property Cleanups
- Scrap Metal Drop-off
- Bin Services
- Industrial Demolition

Household Waste

Solution

Mistawasis has its own Garbage Truck and Roll-off Truck that disposes of household waste on reserve.

TJ Disposals and Highway 55 also provides services on reserve.

Recycling Tires

Tire Stewardship of Saskatchewan (TSS)

Ensuring that scrap tires are recycled in an environmentally friendly and sound manner.

Dedicated to delivering an effective and environmentally responsible tire recycling program in the province.

Source: https://tssk.ca/about-us/

Thank you